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PRINCIPAL CONTENTS.

American Railroad Journal.

Saturday, August 28, 1852.

Importance of Natural Science to the Engineer.

The prosecution of the great improvements of the age, in machinery, whereby the products of different regions are now so cheaply interchanged, and the ease and safety of travel so wonderfully increased, has raised up a profession as intellectual in its pursuits, and liberalizing in its exercise, as any of those departments in which human art has been heretofore called on, to minister to the wants physical, social or moral of the family of men.—The present is emphatically the era of machinery, we are fed and clothed mainly by its agency, and to plan the countless details and submit to the rigid accuracy and measurement of mathematical calculations, the varied parts of this vast and growing system, demand no mean powers of mind and extensive cultivation and experience. For the protection of property and the preservation of health, there are means to be employed, and arts to be studied, and no less beautiful and no less important are the sciences which teach the engineer to run his line or poise his bridges. We consider the profession of an engineer, as elevated and attractive to the highest order of intellect as those of the lawyer or physician. The jurist determines the relations of property towards man, but the engineer stands at the very head of that system which creates property, to an incalculable extent. by teaching the very elements to labor for the benefit and profit of man. The physician, in discharging his duty, as the preserver and restorer of health, is entitled to our respect, but we doubt whether the application of remedial agents prove as effectual in prolonging the average of life, as the cheapened comforts and the diffusion of necessaries among the masses, brought about by the agency of the engineer and the works he plans and directs towards completion.

The high character of the profession is, acknowledged, and the genius of a Stephenson and a Brunel have already, during the thirty years that have called civil engineering into being, cast a brilliant lustre on its history. It already has its heroes and bright examples, and the youthful aspirant for its honors is required to toil as patiently and study as closely, as if devoted to any other intellectual calling. Railroads and canals, steamships and telegraphs are the common interest of mankind; and the art which constructs them has an equally wide value as the uses of the engines it calls into being. All have a stake in the intellect, which renders these works safe and efficient. It is an ambition worthy of the noblest genius, to become an accomplished engineer, and the elevation of the profession should be the aim of all its members. How shall this be effected? The only way is of course, the path of study and well directed cultivation. But like all the other professions, the complete master of it, and the man who cultivates it aright must have a wider range than that of the mere routine of its proper business. While skill and experience in the solution of the various mathematical and mechanical problems are *indispensable* to the engineer, there are requirements besides these, to enable him fully to discharge his duty as the adviser and counsellor of the company, which employs his talents and services. All the professions offer means to the accomplishment of certain needs, and the necessity for them must be felt, before it is possible, that those versed in them can receive employment. But the urgency, extent and grounds even of such necessity are problems to be judged by the professional adviser as well as the manner and method of satisfying it. The skillful engineer when called on to direct the physical accomplishment of a work, must modify it, to suit as well markets, population and production, as the nature of the soil or the existence of streams and mountains. Social and economic science are hence as much requisites to him in the discharge of his important responsibilities as mathematical knowledge. The fact is, that the cognate and auxiliary branches in an art, sometimes are felt to be of more importance than its proper scientific basis. That accurate judgment in matters of growth and development business men acquire, may often be found more valuable to the engineer than the ability to solve a difficult but remote mathematical problem, the results of which the practical man may appropriate from and take on the authority of a text book.

We greatly desire the elevation of the profession of the engineer; it is destined to be no temporary or occasional employment, but must go forward with rapid steps. England and the United States are the only countries where the railroad system, the grand instrument of development, is to any large extent completed. But has it reached its limit in either country? No it ceaselessly grows and must continue to do so, and by the time that new works begin to halt, the old ones must be made on a new basis. The profession is necessary, not accidental or temporary, and it is worthy of the best efforts of talent and study. Among the branches which at first seem rather superfluous are those which belong to natural history—the study of organic forms and the history of the earth and its material constitution and changes. In the first place, these studies are most delightful, and exalting in themselves, and have a peculiarly happy influence on the mind. The contemplation of objects of Natural History may take the bent of each individual intellect and be cultivated in any direction as shall be most convenient, or to any extent.—Viewed in detail or broadly generalized it is equally pleasant and useful. The specimens necessary for the study are in the way of the engineer, he can pick up a flower, a mineral or a shell as they lie in his path, and examine them at his leisure. The recreation to the mind afforded by this change of employment, is of no little moment, at times when the engineer is removed from books and society, and when the laborious duties of calculation and drawing are over. His facilities for the collection

and observation of rare specimens must not be overlooked, and it is a waste of opportunity not to take advantage thus of the numerous out-door explorations required by his business; especially as it need not lead to any neglect of the main objects of his occupation. His travel backward and forward over long lines of country enables him to acquire a familiar geological as well as a mere topographical knowledge, of the localities and the regions he traverses not possessed by mere stationary students of geology. Again, the excavations and deep cuts which are necessary at many points on a line, enable him to study the rocks, and veins, and obtain the minerals and fossils of the country more easily than superficial observers. These are a few of the advantages which the nature of his employment gives.

We believe, however, that the interests of companies and those of the country are intimately connected with the efficiency of the great engineering corps, and this efficiency is greatly increased by their adding natural science to their indispensable mathematical and mechanical acquirements. We conceive that no company could doubt that between two engineers of equal reputation and talent, it was for their profit to secure the services of the man, who was in addition to his mechanical attainments a competent geologist. It might be that no advantage would result from his special knowledge, and again, there might be benefits derived from it of incalculable value to the owners of the road, and the public. This chance is surely not to be neglected. The mineral riches of this country are great beyond comparison, we merely at present reap the superfluous treasures, which are found on the surface, as it were. When the country is more densely populated and that diversity of employment arises, which is wont in rich and populous countries, the development of these treasures economically and scientifically, will call for engineers either to add geology to their list of necessary sciences or else demand the education of a special class of engineers of mining. In this connection, the all-important science of chemistry will find place among the auxiliaries, of the complete engineer. The observations on soil, climate, meteorology and physical geography, generally, are studies evidently cognate with geology, and at once within the scope of the engineer's profession and most probably agreeable to his tastes.

We throw out these suggestions in the hope of inducing a closer union and systematic cultivation of the natural sciences, by engineers. We know many of them are naturalists of eminence, and the geological observations of our engineers, have often been of great scientific and practical value. We think it a duty that exploring parties owe to their country and one that would be doubtless encouraged, by companies generally, to verify and add to the geological observations of the States, where surveys of this sort have been made, where none have been commenced, to contribute materials that may facilitate such an undertaking. Our geologists, from the practical character of the country, should be also engineers and engineers should be geologists; and geology in its widest significance finally brings in the whole circle of organic life, vegetable and animal—both that belonging to the antique eras of the earth and the recent. We feel that our remarks will be taken in good part, by that noble profession which is the informing intellect of the mechanical world; and if we can induce young engineers to add to their mathematical studies, those belonging to the wide field of nature, they will not regret the step, which must add to their usefulness as engineers while it will tend to make them happy and wise in the possession of truths, which if not so lofty as those, which pertain to man, are at least unsullied by crime and unalloyed by misery.

The New Suspension Bridge.

We give below, the proportions and other statistics of the Suspension bridge about to be built over the present one at the Falls. It is with great pleasure that we notice the activity which prevails, in reference to the new bridge, as also in the construction of the railroad. We have no doubt on our own mind, but that Canada is destined to take her proper position among surrounding nations, and the present railroad enterprise will hasten the consummation so devoutly to be wished. When we can travel from the eastern to the western provinces by railroad—when we can transmit our produce, through our own territory, to the English market—then, and not till then, will we be in a position to compete with our neighbors in a friendly race for travel and commerce.

The bridge will form a single span of 800 feet in length. It is to serve as a connecting link between the railroads of Canada and the state of New York and to accommodate the common travel of the two countries. It is established by ample experience, that good iron wire, if properly united into cables or ropes, is the best material for the support of loads and concussions, in virtue of its great absolute cohesion, which amounts to from 90,000 to 130,000 lbs. per quarter inch, according to quality. The bridge will form a straight hollow beam of 20 feet wide and 18 feet deep, composed of top, bottom and sides. The upper floor which supports the railroad, is 24 feet wide between the railings, and suspended to two wire cables, assisted by stays. The lower floor is 19 feet wide and 15 high in the clear, connected with the upper one by vertical trusses, forming sides, and suspended on two other cables, which have ten feet more deflection than the upper ones.

The anchorage will be formed by sinking eight shafts into the rock, 25 feet deep. The bottom of each shaft will be enlarged for the reception of cast iron anchor plates, of sixteen feet square. These chambers will have a prismatical section, which, when filled with solid masonry, cannot be drawn up without lifting the whole rock to a considerable extent.

Saddles of cast iron will support the cables on the top of the towers. They will consist of two parts —the lower one stationary, and the upper one moveable, resting upon wrought iron rollers. The saddles will have to support a pressure of 600 tons whenever the bridge is loaded with a train of maximum weight. The towers are to be 60 feet high 15 feet square at the base and at the top. The compact, hard limestone used in the masonry of the towers, will bear a pressure of 500 tons upon every foot square.

WEIGHT OF BRIDGE.

Weight of timber	910,130 lbs.
Wrought iron and suspenders	113,120
Castings	44,332
Rails	66,740
Cables between towers	535,400
	2,678,622

WEIGHT OF RAILROAD TRAINS.

One locomotive....tons	25
27 double freight cars, each 25 feet long, and of 15 tons gross weight	405
Making a total gross weight of 430 tons, which will fall upon the cables when the whole bridge is covered by a train of cars from end to end: add to this 15 per cent increase of pressure as the result of a speed of 5 miles per hour, which is a very large allowance	61
Add weight of superstructure	782
Total aggregate maximum weight	1,273

The tension of the cables, which result from a weight of 1,273 tons, and an average deflection of 59 feet, is 2,240 tons. Since this assumed maximum tension can but rarely occur, it is considered ample to allow four times the strength to meet this tension—that is 8,960 tons. But assuming 2,000 tons as a tension to which the cables may be subjected, five times the strength to meet it is allowed, and an ultimate strength of 10,000 tons provided for. For this purpose, 15,000 wires of No. 10 will be required. At each end of the upper floor the upper cables will be assisted by 18 wire rope stays, and their strength will be equivalent to 1,440 wires: these deducted, leave the number of these wires in four superior cables, 13,560—the number of wires in one cable, 3,390—diameter of cable, 9¼ inches.

The railroad bridge will be elevated 18 feet on the Canadian, and 28 on the American side, above the present surface of the bank, and above the present structure. It will be the longest railroad bridge, between the points of support, in the world. —*St. Catherines Journal.*

Finances of Pennsylvania.

Mr. J. J. McCahen, now on a mission from the Executive of the state of Pennsylvania, in London, has addressed the following letter to the loanholders of the state of Pennsylvania:

The undersigned, duly appointed and commissioned by the authorities of the state of Pennsylvania, a commissioner of loans for said state, respectfully announces to the holders of the loans created by her laws, his arrival in this city with all lawful powers to negotiate an exchange of any of the existing obligations of the state, and conclude new loans for a period not exceeding thirty-five years, at a rate of interest not more than four per cent per annum, free from every kind of taxation, so expressed upon the bond, with coupons, or interest certificates attached, payable semi-annually, on the first days of February and August of each year. The bonds to be issued in the sums of one, five, or ten thousand dollars each, according to agreement.

The whole debt of Pennsylvania is forty millions of dollars or about eight millions of pounds sterling. The state has the right to pay off the same at the periods designated in the following table:

At the present time, (and will be paid during the present year	$3,314,325 20
In the beginning of the year 1853 (will be paid as soon as the period arrives)	688,479 51
Loan made in 1841	650,163 00
Bank charter loans, payable at any time	119,500 00
During the year 1853, and January 1, 1854	2,744,057 83
During the year 1854	2,146,529 83
Aug. 1, 1855	4,478,040 36
July 1, 1856	2,781,190 49
March and July 1, 1858	7,022,233 01
July and August 1, 1859	1,209,990 59
July 1, 1860	2,582,386 43
The remainder of the loans are payable in 1861, '62, '63, '64, '65, '68, and '70, $400,000 due in 1789, and $850,000 in 1882, amounting in all to	18,062,000 00
Total	$40,784,905 20

It will be perceived by the foregoing, that the state has the right to pay off during this year, $3,314,325 20. During the year 1853, $4,207,200 34. During the year 1854, and August 1855, $6,624,670 09; and July 1, 1856, $2,731,190 49.—The first half year of 1858, $7,022,233 01. In two years after, $4,392,386 02; making an aggregate of $28,287,005 20, payable in less than eight years. It is for the holders of these loans to determine, in the present condition of the money market of the world, the prospect of vast accumulation of capital which may become idle or unproductive, or the rates of interest everywhere materially reduced, if it is their interest now to make a permanent investment for any period not exceeding thirty-five years.

Should all or any believe the present opportunity the Executive, Treasurer and Legislature of Pennsylvania has afforded them through her commissioner, worthy of acceptance, the undersigned will be most happy to carry out the object of his mission, and upon the surrender of the certificates of their loan or interest, will issue authorised receipts for the fulfillment of the same, taking effect immediately.—Or if they prefer any arrangement to exchange their certificates upon the delivery of

the new bonds, he is prepared to negotiate the same.

The following exhibits the comparative revenue of the state of Pennsylvania, for the years 1843, and 1851, and the estimated revenue of 1852, from general and regular sources. The fiscal year terminates on the 30th of November.

	1843.	1821.	1852.
Loans.....	$8,254 03	$43,152 96	$15,000
Auc. Com & duties	88,972 28	71,316 47	74,000
Tax on banks Cor. and their dividends.....	67,040 55	392,830 61	420,000
Tax on loans, offices, enrollments &c	42,844 03	202,672 95	225,000
Tax on real and personal estate..	544,452 06	1,372,170 36	1,400,000
Tax on collateral inheritances ...	22,337 05	150,625 48	150,000
Licenses, ret. Tav., etc..	119,952 34	297,999 90	300,000
Pub. works, Rail-roads, & canals..	1,019,401 15	1,719,783 54	2,000,000
Other sources, ordinary rec'ts.	1,573 87	70,853 21	100,000
Balance of avail funds at end of fiscal year.	115,466 91	543,979 21	1,000,000
Total	2,040,294 27	4,865,398 70	5,760,000

The prosperity of the state cannot be retarded, unless by some improbable casualty; the completion of the last link of her improvements has been provided for, and it is expected that in one year the North Branch canal will pay a revenue upon more than three and a half millions of dollars, hitherto entirely unproductive. The railways are now improving, and being adapted to increased business and celerity in transporting passengers and freight, and we may confidently predict that, in less than two years, the receipts upon our public works will exceed two and a half millions of dollars per annum. The single article of anthracite coal will illustrate the productive wealth of the state. In 1843 there was sent to market from our eastern coalfields 1,240,710 tons, and in 1852, 4,383,730 tons—showing an increase of production of 3,143,020 tons. The amount mined in 1852 will equal 5,300,000 tons.

The proposals for the five million loan, at a rate of interest not exceeding five per cent per annum, for 25 years, advertised to pay off so much of the debt, will be opened at Harrisburg, the capital of the state, Sept. 7. Those who desire to bid for any part of it can leave sealed proposals addressed to the secretary of the Commonwealth, care of the undersigned, until the 10th inst. Whatever amount the holders of the loan which the state has now the right to pay off convert, will reduce the allotment of the same to the bidders.

In thus addressing the loanholders, it may be proper to state, that the authorities of Pennsylvania believed it was due to the holders of our debt in Europe, to make known to them the passage of the law authorising the foregoing, and afford them such facilities in embracing its provisions as the presence of an authorised commissioner would give; and also, at the same time, exhibit to them the prosperous condition of her affairs.

☞ Communications addressed to the undersigned, at Long's hotel, New Bond street, or care of Messrs. Baring, Brothers, and Co., or Messrs. George Peabody & Co., will meet prompt attention.

JOHN J. McCAHEN,
Commissioner of Loans for state of Pennsylvania.

London, Aug. 5, 1852.

North Carolina.

The Centre railroad through North Carolina which connects with the Charlotte railroad, is graded nearly the entire distance.

The Population and Representation of the United States.

We understand that on the 2d instant the Secretary of the Interior, in compliance with the provisions of the Act of Congress, approved 23d May, 1850, providing for the taking of the seventh and subsequent Censuses, transmitted to the House of Representatives his official certificate of the number of Representatives apportioned to each State, under the last or Seventh Enumeration of the inhabitants of the United States, and that certificates are being prepared to be sent to the Executive of each State of the number to which such State is entitled. These certificates are in accordance with, and founded upon the following table, showing the federal and representative population of the United States on the 1st day of June, 1850:

Population of the United States, Seventh Census, 1850, with the Apportionment of Representation and the Fractions for each State:

	Whites.	Free colored.	Total.	Slaves.	Federal representative population.	Represt's of each State. No.	Fract's.
Maine	581,813	1,356	583,169	....	533,163	6	22,649
New Hampshire	317,456	520	317,976	....	317,976	3	37,716
Vermont	315,402	718	314,120	....	314,120	3	33,860
Massachusetts	985,704	8,795	994 499	....	994,499	11	*60,299
Rhode Island	143,875	3,669	147,544	....	147,544	2	*54,124
Connecticut	363,305	7,486	370,791	....	370,791	4	*90,531
New York	3,049,457	47,937	3,097,394	....	3.097,394	33	14,534
Pennsylvania	2,258,463	52,323	2 311,786	....	2,311,786	25	*69,706
Ohio	1,956,108	24,300	1,980,408	....	1,980,408	21	18,588
Indiana	977,628	10,788	988,416	....	988,416	11	*54,216
Illinois	846,104	5,366	851,470	....	851,470	9	10,690
Michigan	395,097	2,557	397,654	....	397,654	4	23,974
Wisconsin	304,565	626	305,191	....	305,191	3	24,931
Iowa	191,879	335	192,214	....	192,214	2	5,374
California	91,632	965	92,597	....	92,597	†2	22,365
New Jersey	465,523	23,807	489,330	225	489,465	5	.....
Delaware	71,169	18,073	89,242	2,290	90,616	1	.....
Maryland	417,913	74,723	492,666	90,368	546,886	6	*79,786
Virginia	895,304	53,829	949,138	472,528	1,232 649	13	18,189
North Carolina	553,118	27,373	580,491	288,410	753,538	8	6,178
South Carolina	274,623	8,900	283,523	384,984	514,513	6	47,413
Georgia	521,438	2,880	524,318	381,681	753,326	8	5,966
Alabama	426,486	2,293	428.779	342,892	634,514	7	*73,994
Mississippi	295,758	899	296,657	309.898	482,595	5	15,495
Louisiana	255,416	17,537	272,953	244,786	419,824	4	46,144
Tennessee	755,893	6,271	763,164	239,461	906,840	10	*66,060
Kentucky	761,688	9,736	771.424	210,981	898,012	10	*57,232
Missouri	592,077	2,544	594,621	87,422	647,074	7	*86,554
Arkansas	162,068	589	162,657	46,982	190,846	2	4,006
Florida	47,167	925	48,092	39,309	71,677	1	.....
Texas	154,100	331	154,431	58,161	189,327	2	2,487
District of Columbia	38,027	9,973	48,000	3,687	.....	.	.....
Minnesota	6,038	39	6,077	.....	.....	.	.....
New Mexico	61,530	17	61,547	.....	.....	.	.....
Oregon	13,087	206	13,292	.....	.....	.	.....
Utah	11,330	24	11,354	.....	.....	.	.....

Total Population in the Thirty-One States.

Whites	19,427,259
Free colored	419,451
	19,846,710
Slaves	3,200,380
Federal Representative Population	21,766,931
Federal Representative ratio	93,420

Total Population, including the Territories.

Whites	19,557,271
Free colored	429,710
Slaves	3,204,093
Total	23,191,074

* All the States marked thus * have an additional member for the fraction.
† One Representative added for California under the Act of Congress approved 30th July, 1852.

Welland Canal Tolls.

We give below the amount of tolls collected at Port Colborne, during the several months of this year and last. It proves that the trade of the west is steadily maintaining its progressive increase of 20 per cent from year to year, notwithstanding the late period at which lake Erie was freed from ice this spring. This ratio has been maintained on the Erie canal for the last twenty years, and forms the basis on which the future increase of revenue on the Welland canal is estimated.

1851.		1852.	
March 31st....	£14 19 7	April commencing	
April 3356	13 10	the 20th..	£139 12 2
May.....3460	6 5	May....	475 11 6
June.....3765	2 1	June	5461 10 5
July 4689	6 7	July.....	5486 10 5
	£14286 8 6		£17114 4 3
	$57,145 19		$68,457 85
Amount over last year, on 31st July....			$11,311 15

—*St. Catherines Journal.*

Pennsylvania.

The president of the Pennsylvania railroad company has lately received very favorable intelligence from Mr. Miller, who is now in London on business connected with the proposed loan of three millions of dollars, The co-operation of the eminent house of Messrs. Overend, Gurney and Co., the largest bankers of London, whose transactions amount to more than one hundred millions of pounds sterling per annum, has been secured.

Hanover Branch Railroad.—We understand that this road continues to do a good business with every prospect of a rapid increase as the season for active operations advances. The passenger travel is also good, and as the rural beauties of the country around Hanover become known, many of our citizens will take the opportunity which is now afforded of visiting it.

Darien Ship Canal.

We learn from the Panama Star that Dr. Edward Cullen has received permission from the government of New Grenada, after obtaining the consent of the Panama railroad company, to open a ship canal across the Isthmus of Darien, between the Gulf of San Miguel on the Pacific, and the Bay of Caledonia on the Atlantic, or any other point on the Atlantic between Punta de Mosquitos and the west mouth of the Atrato for 99 years.

The date of privilege is the 1st June, 1852, given at Bogota—and the canal is to be completed within ten years, with a prorogation of four years longer, if required, should one third of the work be then finished. The company receives with the grant, 100,000 fanegadas of land to be selected in any part of the Republic. The harbors, both on the Pacific and Atlantic, are to remain free and neutral. The New Granadian government is to receive 3 per cent of the profits for 80 years, and 5 per cent for the remaining 19 years. The company are to make a deposit of £24,000 guarantee, within 12 months of the date of the grant. The names of the parties receiving this grant are Dr. Edward Cullen, Sir Charles Fox, John Henderson, and Thomas Brassey, Esqrs., names sufficiently well known to secure the speedy completion of the work. Fox and Henderson, it may be remembered, were the builders of the great Crystal Palace; and Brassey is associated with Peto and others, in the most gigantic enterprises in all parts of the world, and was the contractor for the Great North Western railroad in England.

By the eighth clause of the Bulwer and Clayton treaty, it appears that both the governments of Gt. Britain and the United States stipulate to extend their joint protection to any company undertaking the construction of this canal; and we learn that it is the intention of the present company in London to carry out the work as an united British and American enterprise.

This route will lead from Port Escoces in the Bay of Caledonia, about 120 miles east of Limon Bay to Fuerte del Principe, the site of an old settlement of the Spaniards, abandoned in 1790, distance about 22 miles S. W. This tract of country is level and of low elevation, but quite free of swamp, the only hill in the intermediate space between the Atlantic coast and Principe is a low ridge behind Port Escoces and Caledonia Bay, but which is intersected by valleys. Dr. Cullen does not believe that there is any where in this tract an elevation of 100 feet. Through this space a canal must be cut, to unite with the river Savana at Fuerte del Principe, or a little below it. At this point on the river, there is a depth of two, and often of three fathoms of water, and the tide rises there six to eight feet. Fuerte del Principe is 18 miles above the mouth of the Savana, and is 14 miles due north of the mouth. The largest vessels can ascend the river nearly to Principe, there being a depth of seven fathoms water at its mouth, and a rise of tide of 21 feet, and the course up the Principe being free from sinuosities, elbows, snags, playas, or other obstructions, its banks are never inundated, and no swamp exists any where in the neighborhood.

The Savana river opens into the Tuyra or Santa Maria del Darien, just as the latter discharges itself into the deep Gulf of San Miguel by two mouths, one of which has 18 and the other 20 fathoms of water. Thus the distance from sea to sea, by this canal route, would be about 40 miles. In a direct line, from Caledonia Bay to the west point of the mouth of the Savana, the distance is only 31½ miles.

The chief recommendation of this route is the excellence of its harbors, in which it has a decided superiority over any hitherto proposed. In many places in Caledonia Bay and Port Escoses there are from six to nine fathoms of water so close to the margin of the sea, that ships may discharge with as much facility as at a wharf. They are perfectly secure harbors, and would hold large fleets. The coast is clean and safe. The canal may open anywhere in these harbors, from Punta San Fulgencia in 8° 55′ N., and 77° 47′ W., to Punta Escoces in 8° 50′ N., and 77° 41′ W. Dr. Cullen places Fuerte del Principe in 8° 35′ N., and 77° 56′ W.

It is a singular fact, that these harbors were selected by Vasco Nunez for his settlement of Alga, by the Buccaneers for their landing place on the occasions in which they crossed to the Pacific by way of the Chuquanagua, and by the Scotch colony of 1698, so inhumanly crushed by William III, and by the Spanish government in 1785, for the garison of San Fernando de Carolina, abandoned in 1790.

The Gulf of San Miguel would hold the shipping of the world, has great depth of water, and its navigation is perfectly safe. Its mouth, bounded by Cape San Lorenzo to N. and Cape Garachine to S., opens into the Pacific immediately south of the east point of the mouth of the Bay of Panama, Cape San Lorenzo being that point. Near the latter is the shoal called El Buey, but which is easily avoided. Cape San Lorenzo is only 80 miles S.E. of Panama, and can be reached, with a fair wind, in one or two days.

Dr. C. had originally proposed the deepening of the river Savana from Principe to Canasas, a point several miles farther north, and cutting thence to the Atlantic, but subsequently considered it better to cut directly into the river, at such a point that the largest ships can reach, and using the upper part of the river as a feeder. He confidently expects that the canal can be cut entirely without locks, and that, by cutting deep enough, the Pacific tide may be let to flow into the Atlantic, and thus ships be enabled to pass from sea to sea, with the ebb and flow of the Pacific.

Missouri.

Pacific Railroad.—The party of engineers, having in charge the *location* of the western half of the Pacific railroad, have been for some weeks occupied in running various experimental lines through this country. One line has been traced, descending the Missouri, from Kansas to the mouth of Big Blue; thence up Big Blue, ascending Heart Grove creek; over the dividing ridge, between Big and Little Blue, and crossing the latter stream, at the Rock Ford, up Moose creek, to the dividing ridge between Little Blue and Big creek. This line here connects with that surveyed two years ago, by Messrs. Kirkwood and O'Sullivan.

Another line, commences at the summit of the Missouri Bluffs, above Wayne city—passes thro' Independence—descends the Lick Fork, (east of town) to Little Blue, and is designed to be continued onward to Warrensburg, in Johnson county, at which point this line also blends itself with the existing one above mentioned.

A third will then be run out, pursuing a straight course from Georgetown, in Pettus county, crossing the waters of Blackwater, to Independence.

The Engineer-in-chief, Thos. L. O'Sullivan, arrived on Saturday the 24th July, from St. Louis and has gone to the south-west corner of the State, in McDonough county, for the purpose of making a *reconnoisance.* From thence, through Springfield and the mouth of Pinee Fork of Gasconade, to St. Louis.

At present, then, the following system of surveys are being executed simultaneously, by the company at St. Louis:

1st. From St. Louis, by way of the mouth of Pinee, through Springfield, to the south-east corner of the State. This is to have the name proper of the "*Pacific railroad.*"

2d. A branch, leaving the main stream at the western edge of St. Louis county, and passing south to the Brown Mountain in St. Francois county.

3d. A branch from the same point, pursuing the bank of the Missouri river, through Jefferson city, thence by Georgetown to the Missouri river in Jackson county.

These surveys are made in preparation for the assembling of the Legislature, designated by the Governor to be on the 30th of August next.—*Independence (Mo.) Western Empire.*

A letter of Gen. T. L. Price, dated California, Manitean county, August 10th, in reference to the same enterprise says: "We are progressing finely, no difficulty in procuring the right of way—besides, all the citizens of California and the neighborhood have manifested a liberal spirit toward the encouragement of the road. A number of individuals have taken considerable amounts of stock; and you will recollect that the people of the county voted for the county to subscribe fifty thousand dollars stock. This proposition was carried by a very large majority.

New York.

Chemung Railroad.—At an election held by the stockholders of the Chemung railroad company, at the village of Elmira on the 5th inst., for the choice of thirteen directors to serve for the ensuing year, the following gentlemen were duly elected, viz: Robert Bayard, Isaac Otis, J. S. T. Stranahan, J. W. Baker, New York; Simeon Benjamin, John Arnot, A. S. Diven, William Maxwell, Elmira; Charles Cook, Havana; C. A. Cook, N. B. Kidder, W. N. Clark, W. W. Watson, Geneva. The directors met on the same day and made choice of the following officers viz: Simeon Benjamin, Esq. president; Isaac Otis, Esq., treasurer; Henry H. Casey, Esq., secretary.

This is a strong board and includes the names of some of our leading citizens. This road, which unites the Erie road at Elmira with the Canandaigua and Jefferson at Jefferson, is leased to the Erie road for a long term at 8 per cent per annum on the cost. It forms a very important link in the chain of roads between New York and Buffalo, and by its position will always command a good traffic. At present it pays the Erie company a profit on their lease.

Albany and Schenectady Railroad.—The number of passengers carried by the Albany and Schenectady railroad for the first fourteen days in August

1852 were	18,310
Corresponding days in Aug. 1851	16,243
Increase	2,067

Rochester and Syracuse Railroad.—The following statement exhibits the earnings of this road for six months up to 1st August:

1852, Feb. 1, surplus profits	$144,758 73
Receipts in February	50,852 19
" " March	53,233 16
" " April	72,376 01
" " May	98 291 39
" " June	116,770 59
" " July	109,157 88
Interest dividend on Buffalo and State line railroad stock	5,549 90
Mail services for six months	10,360 00
Total	$661,289 85
Expenses in February	$38,504 46
" " March	42 622 55
" " April	31,533 76
" " May	29 225 76
" " June	39,559 33
" " July	35,482 22
Balance for disbursements	6,988 95
Int. on scrip stock and bonds	44,033 56
Dividend at 5 per cent on capital stock $4,066,000	203,300 00
Balance to new account	190,039 26
	$661,289 85

The surplus profits after declaring a dividend of 5 per cent on the earnings of six months has increased $50,000.

North Carolina.

Charlotte and Jonesboro' Railroad.—A meeting of the citizens of Mecklenburgh county, North Carolina, was held on the 5th July, at Charlotte C. H., for the purpose of considering the subject of a railroad between Charlotte and Jonesboro, Tenn. A committee was appointed to enter into correspondence with citizens on the route and its vicinity, and appoint a day for the meeting of a railroad convention on the project, at Charlotte.

Ohio and Mississippi Railroad.

The Common Council of the city of St. Louis, have passed resolutions to accept stock in the above Co., on receiving an assurance that the western division of the road shall be completed before the eastern. The following are the resolutions of the council, as amended and passed on the 13th of July, 1851, together with the note of Wm. Truesdail, the agent of the contractors to the committee of the board of directors, and the subsequent ratification by Messrs. H. C. Seymour and Co. The hearty co-operation of the city of St. Louis is now secured, and the most vigorous measures will be adopted for the immediate prosecution and completion of the work.

Resolved, by the city council of the city of St. Louis, That the city will accept and ratify as a stockholder, the act passed by the legislature of the state of Illinois, approved June 22d, 1852, entitled "An act to incorporate the Ohio and Mississippi railroad company and for other purposes, and the joint committee of the council having charge of the city's interest therein, are instructed to enter upon the books of the company, an acknowledgement in conformity herewith, whenever the contract made with H. C. Seymour and Co., for the construction of said road, shall have been modified as follows:

1st. The said road from Illinoistown to Vincennes shall be finished, completed and turned over to the stockholders within three years from the 1st of July last past.

2d. The city to issue her bonds to the contractors only upon the regular calls of the board of directors upon all stockholders, and in no case to be dealt with differently than the other stockholders.

—

St. Louis, July 5, 1852.

Messrs. J. H. Lucas and Chas. P. Chouteau, Com. of B. D. Ohio and Miss. R. R. Co.

Gents: In answer to your note of this date, setting forth that ours to you of the 2d instant, might be subject to misconstruction, we now in lieu of former assurance, *do agree*, most *explicitly*, to finish the western division of the Ohio and Mississippi railroad, from Illinoistown to the State line at Vincennes, within *three years* and have *the same in successful operation before* the eastern division, from Cincinnati to Vincennes, shall be completed; provided, however, the means are furnished as are required.

With much respect, your ob't servant,
Wm. Truesail, Agent.
H. C. Seymour & Co.
Sanger, Camp & Co.

—

St. Louis, August 2, 1852.

To Messrs. Lucas and Chouteau, Committee, &c:

Gentlemen: Having been advised during our absence that an agreement on our part so to modify the contract as to complete the Illinois division of the Ohio and Miss. railroad within a period of 3 years would harmonise the conflicting views on this subject, and secure the hearty co-operation of the Common Council of St. Louis in the prosecution of the work, we authorised our agents Wm. Truesdail, and Sanger, Camp, and Co., to signify our willingness to accept such modification.

Their letter of July 5, 1852, we fully and cordially indorse; and furthermore, we are now prepared to carry out the intimation of our agents, and will hold ourselves in readiness to execute the modification as above, any time on or before the 7th inst., provided, that in the meantime the council adopt the inclosed report and resolutions of the joint committee of the city council.

Very respectfully, yours, &c.,
H. C. Seymour & Co.

Vermont.

Vermont Valley Railroad.—The following gentlemen comprise the board of directors: Hugh H. Henry, of Chester, president; G. L. Schuyler, A. Hamilton, Jr., R. B, Mason, G. R. Bowdoin, New York; Charles Chapin Brattleboro'; P. R. Chandler, Putney.

Michigan Central and Canada Railroad.

The Michigan Central railroad, is one of the very best roads in this country. It is laid with heavy T rail, and the road in all its appointments is laid and equipped in the most substantial and perfect manner.—The distance from Chicago to Detroit is 278 miles, and it is run by the express train in a little more than ten hours. The time is soon to be reduced to *nine hours.*

In connection with this road, the great Western road through Canada is now being pushed with great energy and will be completed by a year from next month.—The distance from Detroit to Buffalo or Niagara, is 214 miles. Of this distance 107 miles is perfectly straight, with a maximum grade of only 4 feet to the mile. The time on this 107 miles is to be two hours—*fifty-three and a half miles per hour.* This will be going through the world fast enough to satisfy the progressive spirit of the age.

The number of passengers during the month of July last on the Michigan Central road, the most unfavorable month of the summer and fall, was,

Way passengers	13,979
Through "	5,400
Emigrant "	2,965
Total	22,344

Baltimore and Ohio Railroad.

New Depot at Washington.—The new railroad depot at Washington, built by the Baltimore and Ohio railroad company, is now nearly completed. The dimensions of the station house, situated at the corner of New Jersey avenue and C street, are 106 feet front, by 68 deep. It presents a beautiful front, built of Connecticut brown stone, and surmounted with a fine quadrangular tower, 70 feet high and 18 feet square, whose sides exhibit the faces of a large well-regulated time keeper. The main car house runs diagonally through the square. It is 60 feet wide and 330 feet long. A long glass window extends through the centre of a grooved iron roof, supported by granite pillars, and girt with massive iron tie beams, remarkable for simplicity and strength. This roof was designed by Mr. Bollman, road master to the Baltimore and Ohio railroad company. Ample platforms on either side render the entrance and exit from the trains easy and convenient. In the night the building is handsomely lighted with gas. The main entrance to the passenger trains is through a beautiful hall, 45 by 68 feet in area, on either side of which are arranged the ticket and freight offices, ladies' and gentlemen's saloons. To the latter are attached elegantly furnished dressing rooms, supplied with mirrors, sofas, and numerous little comforts, seldom, if ever, found at railway stations. Messrs. Niernsee & Neilson, of Baltimore, furnished the designs for the building, which has been erected under the superintendence of Mr. John H. McMachen.—*Balt. American.*

Influence of Railroads.

The following list of improvements now going on at Wheeling are attributed to the expected completion of the Baltimore and Ohio railroad to that point. The Wheeling Gazette says:

We will name but a few of the buildings of a public character going up, and the aggregate expenditure they will involve, at a rough guess, and see what an immensity of money they sum up.—Four iron works $400,000. Two hotels $160,000 (one completed.) Washington Hall $35,000.—Forsythe & Co's Warehouse, the largest in the Union, $30,000. Four other warehouses $25,000, One market house $40,000. Ten stores $40,000. B. and O. railroad depot, $100,000. Bridge $60,000. One pork house and Chandler's shop $20,000,—in all, $910,000. This is the money now being expended here in a few varieties of business, and building. What amount may be fairly estimated as the expenditure in residences, and smaller establishments, we have not now time to inquire into, dependant on the increase of population which these works must produce?

Illinois.

Chicago and Alton Railroad.—We learn that a corps of engineers have been organized for the survey of that portion of the above road lying between Bloomington and Chicago. Mr. P. A. Badeau, who has been connected with the road for sometime past, will have charge of the survey, and has proceeded to Bloomington, where the work will be immediately commenced. We commend him to the people along the line.

That portion of the road between this city and Springfield is progressing with great rapidity, and it is confidently anticipated that it will be in order for the cars to run to Springfield in the course of two weeks from this time—there being about eleven miles of track to lay.—*Alton Telegraph.*

Chicago and Rock Island Railroad.—Gangs of hands are busy laying down the ties and iron, at both ends of the section of the Rock Island railroad, between this city and Joliet. With a continuance of ordinarily fair weather, the entire section will be completed, and trains running between this city and Joliet, by the middle of next month—say thirty-five days hence.

The division beyond Joliet is being graded and bridged rapidly, and the iron and ties will be put down some distance before winter sets in.

Mr. Farnham, who has the superintendence and control of the whole enterprise, is a man of uncommon energy, and the fact that he directs the construction of the road, is a guaranty that it will not lag. Early next year we may expect to visit La Salle and Peru on the *first train.*—*Chicago Tribune.*

Pittsburg and Steubenville.

Right of Way through Virginia.—The case stated briefly as we understand it, is this: The people of Brooke and Hancock counties, Virginia, petitioned the Virginia legislature last winter, for the right of way for a railroad connection between Pittsburg and Steubenville. The petitions were presented and referred to a committee. The committee reported by resolution "that it is inexpedient to grant the prayer of the petitioners." The report coming up for consideratian in the house of delegates, Dr. Smith moved to amend the resolution reported by the committee by striking out the word "*inexpedient.*" And, after a discussion of the question for several days, the amendment of Dr. S. was *carried.*

The legislature will re-assemble next November, and this question will be then acted upon; and the right of way, we are confidently assured, will be then granted.—*Pittsburg Com. Journal.*

Sodus Bay and Southern Railroad.

The Sodus Point and Southern railroad, will soon be put under contract. This must be gratifying intelligence to its numerous friends. There are those who have labored long and well to secure this road, and all their labors are about being crowned with success, this certainly must be pleasant. Prominent among the early advocates, nay the originator of the road, is Dr. Cook. Those who will be benefitted by the road, and it will be advantageous to the whole country, owe to his indefatigable perseverance and untiring energy whatever of benefit may accrue to them, Such men are public benefactors, and are held in happy remembrance by a grateful people.—*Wayne County Whig.*

Immigration During June.

During the month of June, there have arrived at New York from foreign ports 508 vessels, bringing 53,206 passengers. The aggregate measurement of these vessels was 204,426 tons. The following table shows the number of passengers who have arrived in this city from foreign countries during the first six months of three years:

	1850.	1851.	1852.
January	13,977	17,240	12,709
February	3,990	10,020	6,570
March	6,690	18,103	23,195
April	15,919	30,531	29,147
May	45,340	36,680	40,777
June	13,951	38,688	53,206
Total	99,900	151,263	163,583

Ohio.

Cincinnati, Wilmington and Zanesville Railroad.—The Lancaster Gazette says, the embankment across the Hocking valley west of the city is progressing rapidly, as is the grading and masonry on other portions of the line, and its completion is regarded as certain, next spring. The Gazette seems to think the Cincinnati papers have neglected to take proper notice of this road, and hopes that the "city press will at any rate notice the arrival and departure of the first train." We will do so with pleasure, and in the meantime, notice whatever we can get from the papers along the line and otherwise, as we have done heretofore, to keep our readers advised of the condition and progress of that important line of road.—*Cinn. Gazette.*

Cleveland and Lake Shore Railroad.—This company held their annual meeting on the 10th inst., and elected Alfred Kelly, Wm. Case, Chas. Hickox, T. M. Kelly, Stillman Witt, D. R. Paige and W. D. Beattie, directors. Mr. Kelley was subsequently elected President, and Mr. Case Vice President. The stock was increased 25 per cent, and the option given the stockholders who had paid up, to take the increase at par. The stock now commands a premium of 15 per cent. The road is finished to within five miles of the Pennsylvania line.

Railway from Hamilton to Rushville.—The Connersville American states that Messrs. L'Hommedieu, Wood and others have recently visited that region, and have made arrangements with the Junction company, for constructing a railway from Hamilton, by way of College Corner, Connersville, etc., to Rushville. The Cincinnati company to construct the road from Hamilton to the State line as soon as the Junction company shall construct one from the State line to Rushville. The people in the several counties in Indiana are alive to the subject, and are engaged in measures to push forward the work. That is a fine country sufficiently rich and productive to satisfy anybody, and furnishing large supplies to this city. They want a railway, must have one, and they are resolved to raise the funds for it.

The Belpre and Cincinnati Railway.—The Hillsborough Co., have done a good business in Cinn. the past week. They have raised principally among our citizens, $300,000 of stock, which will enable them to pay off all its liabilities which have matured, and leave their line finished from Loveland to Hillsborough unembarrassed, with a surplus running income sufficient to pay off all their remaining debts as they mature. The recent surveys for extending their line from Hillsborough to the coal regions and on to Belpre, has attracted great attention in Cinncinnati, and such is the desire to reduce the price of fuel here, and such the confidence that this road will effect a great reduction, that the company may look for still more aid. The stock in the company, when opened to the coal field, must be profitable, and when the line is opened to connect the St. Louis and Cincinnati road with the Baltimore and Ohio road at Parkersburg, this will rank among the best paying railway stocks in the Union. It is now certain that the connection with the Baltimore and Ohio road *will be made at Parkersburg.*

The directors, in consequence, have recalled the $225,000 bonds they have offered for sale, and they will be all cancelled.

Canada.

Prescott and Lake Huron Railroad.—The Perth Standard says that the town Council of Perth have recommended that the Municipality take stock to the amount of £10,000, in the Prescott and Georgian Bay railroad, via Smith's Falls and Perth.

New York.

Genesee Valley Railroad.—The friends of this road, says the Rochester Democrat, will be gratified to learn that the difficulty in regard to the directorship of this enterprize has at last been settled, and that there is now a prospect of its speedy prosecution. Operations will be commenced under very favorable circumstances. Including the city subscription of $300,000, the sum of $600,000 has been subscribed by responsible parties. The directors have now all been chosen, and consist of the following gentlemen, the four last having been elected by the common Council.

James S. Wadsworth, Allen Ayrault, Geneseo; Daniel H. Fitzhugh, Groveland; John Vernam, John R. Murray, Mt. Morris; William T. Cuyler, Leicester; Azariah Boody, Elijah F. Smith, Amon Bronson, Levi A. Ward, Joshua Conkey, Everard Peek, and Isaac Hills, of Rochester.

There is a very general anxiety among the people of the Valley for the speedy prosecution of the work. They prefer to maintain their long business connections with Rochester, rather than form new ones with other cities, as they will soon be forced to do without a railroad in this direction. The road from Hornellsville to Attica is just on the point of completion, and is already used to a considerable extent. The work upon two other lines is rapidly advancing, and in all probability will be completed before the Genesee Valley Railroad. The latter will be the favorite throughout the Valley, and will command the great bulk of the business. The trade of Alleghany county is now almost entirely turned into a new channel. The completion of the Erie railroad is working greater changes in that region than is generally supposed. Instead of taking a week to come to this city and return by teams or by the canal, two days suffice to send stock, butter, cheese, and other products to New York and get the returns in cash. The Valley railroad will reclaim a great share of this business for Rochester, and without it our progress would be seriously checked for a long time to come.

Lake Ontario and New York Railroad.—The Cayuga New Era states the contracts for the grading and masonry of this road have been made, and with a certainty that the work will be immediately commenced.

Erie Railroad.—This company have we understand leased the Paterson and Ramapo roads, on very fair terms; and it is their intention at once to widen the tracks to six feet, so that very soon New York will be put into communication with the lakes and the west, by a direct railroad line without any break of guage or other chasm, except crossing the Hudson at Jersey city. The ferries between New York and Jersey city have recently been greatly improved, and the new ferry houses, with their spacious rooms, offices, etc., resemble a regular depot more than the ordinary accommodation for ferry passengers.

New York and Buffalo Railroad.—The completion of the magnificent bridge at Portage, over the Genessee river, has opened direct communication between New York and Buffalo. The twentieth instant, was the day appointed for the running over of regular trains.

The Horse Trade of the West.

Horses are carried by railroad from Cincinnati to New York or Boston in five days, and for the sum of thirteen dollars each. The omnibus proprietors of New York are supplied from Cincinnati.

Massachusetts Railroad Statistics.

Eastern Railroad.—Incorporated in 1836. Opened throughout November 9, 1840. Length, 74 miles,* (including branches. Length of double track, 16 miles. Cost, Jan. 1, 1852, $3,614,275.*

The following table exhibits the operations of the road, during the last ten years; its cost, and the market price of the stock, at the beginning of each year. The item of "Interest" is not included in the expenses:—*Boston Courier.*

Year.	Cost.	Value of stock.	Gross receipts.	Running expenses.	Net income.	Dividends.
1842....	$	$100 per sh.	$269,169	$119,040	$150,129	6 per cent.
1843....	.....	89 "	279,562	104,641	174,921	6 "
1844....	2,388,600	104½ "	337,238	109,319	227,919	7½ "
1845....	2,406,400	112 "	350,150	116,840	233,310	8 "
1846....	2,471,600	104 "	371,339	132,556	238,783	8 "
1847....	2,815,100	108 "	424,841	135,083	289,758	8 "
1848....	2,937,200	104 "	479,158	182,216	296,942	8 "
1849....	3,095,400	104 "	517,929	183,980	333,949	8 "
1850....	3,119,300	101 "	539,076	185,218	353,858	8 "
1851....	3,120,400	104½ "	502,054	195,399	306,655	8 "
			$4,070,516	4,464,292	2,606,224	Av. 7 11-20 per cent.

* Including Eastern RR. in N. H. which is leased to, and operated by the Massachusetts company.

Telegraph Business.

The Magnetic Telegraph company, owning the line extending from Washington to New York, during the year ending on the 1st of last July, transmitted over their wires 253,857 messages, the tolls received on which amounted to $103,232·37. During the six years and a half the line has been in operation its receipts have amounted to $385,-641·42. The rapid increase of the business of the line is shown by the fact that the receipts for the year ending July, 1852, were but $67,737·12. The last annual report of the company gives some particulars of interest.

The capital of the company is $370,000. It has six wires from Washington to Philadelphia, and seven from Philadelphia to New York. It has offices at Washington, Baltimore, Havre-de-Grace, Port Deposit, Wilmington, Philadelphia, Trenton, New Hope, Princeton, New Brunswick, Newark, Jersey city and New York, and employs in its service, including messengers, outside laborers engaged in keeping the line in order, clerks, operators, etc., about one hundred and twenty-five persons. The distance from Washington to New York, by the line of the wires, is about two hundred and seventy-five miles; requiring between nineteen hundred and two thousand miles of wire. The cost for chemicals is considerable, and the amount of stationary quite immense—the single item of envelopes for the year reaching in number nearly one quarter of a million. This is the pioneer line of magnetic telegraph in the world, and very large sums have been expended in various experiments, the object all the time being to make it as perfect as possible. It is now, perhaps, all things considered for its length, the best appointed and most reliable in the country, and probably the most productive in the world.

Canada.

Ocean Steamers.—We have much pleasure in being able to state, that the government have succeeded in concluding an arrangement by which a line of steamers will run *fortnightly* from Montreal and Quebec to Liverpool, commencing next spring, and from Portland to Liverpool *monthly*, during the winter season. The Atlantic and St. Lawrence R. R. Co., and the Portland railway company, as also the city of Portland, contribute to the expense of maintaining the winter line of boats, and as the R. R. from this city to Portland will be completed through in July next, Montreal will thus not only be put in communication with England by the shortest route, but have the additional advantage of passing her winter imports and travel over a line one half of which belongs to the people of Canada. It is impossible to estimate the results of opening up a steam communication *via* the St. Lawrence. Through the Strait of Belle Isle, the distance to Quebec is some 400 miles shorter than to Boston, and with the Straits properly lighted, the *route* may be made with the most perfect safety. We believe that by this line our mails may be made to reach us earlier than they now do *via* Boston and New York, and we are satisfied that if the proper measures are only taken to point out the advanges of this *route*, by establishing agencies in that principal European ports—If this we say be only done, as it ought to be done, a large share of the vast stream of emigration which now sets into N. York can be directed, and will be directed to the St. Lawrence. Already the German emigrant bound west is finding out the advantages of coming this way, and with cheap steam navigation, the best of the European emigration will take this route in preference to any other. The proposed steamers will be 1500 tons, built of iron, and propelled by screw. The price of a cabin passage will be £20, second cabin £12, and steerage passage £6—this including meals and all that is necessary for the voyage.—*Pilot.*

New Hampshire.

An Important Railroad Movement.—We understand that the stockholders of the New Hampshire Central railroad, which runs from Manchester to Bradford, being satisfied of their inability to proceed any further with the undertaking, have given up their stock, and relinquished all interest in said road to Messrs. Clark & Co., the well-known brokers.—These gentlemen, we further understand, are to complete the road from Bradford, the present northwestern terminus to Claremont, N. H: From thence it is intended to intersect the Rutland and Burlington road at or near Bartonville, Vt. A line of road is also to be built from Whitehall to Sackett's Harbor, on Lake Ontario, and thus over all these roads furnish a new and important line of communication between the Lakes and Boston.—The contract for the surrender of the N. H. Central road has already been completed. From the reputation and extensive business connections of the firm, into whose hands this road has passed, we infer that operations will be soon commenced to forward this undertaking.—*Brattleboro' Eagle.*

Mohawk Valley Railroad.

This company, incorporated last year under the general law to construct a railroad on the south side of the Mohawk river, between Schenectady and Utica, has lately been reorganized to a considerable extent, and the following gentlemen were yesterday elected directors to fill vacancies:—

Erastus Corning, John Townsend, Marcus T. Reynolds, Thomas W. Olcott, and John V. L. Pruyn of this city, and Alonzo C. Paige and Chauncey Vibbard of Schenectady. John V. L. Pruyn was elected president of the board, in place of Azariah C. Flagg resigned.

Although no plan of operations has yet been agreed upon, we learn that it is contemplated, if it should on examination be found expedient, by the parties interested, so to do, to lay a third track on or parallel with portions of the Utica and Schenectady railroad, which connected with a track or tracks constructed by the Mohawk Valley company, running through the principal points on the south side of the river will amply serve all the purposes in contemplation when the latter company was incorporated.

Drainage of Great Rivers.

Lieut. Maury, in a recent letter to the Mercantile Library Association of Charleston, regarding his favorite prpject of steam communication with the river Amazon, gives a table of some interest. It shows the amount of drainage effected by the great water courses of the globe, as follows:

	Square Miles.
Extent of back country drained by the navigable rivers of Europe that empty into the Atlantic	532,940
Extent of back country drained by the navigable rivers of Europe that empty into the Mediterranean	678,430
Extent of back country drained by the navigable rivers of Asia that empty into the Indian ocean	1,661,760
Extent of back country drained by the navigable rivers of Asia that empty into the Pacific	1,767,280
Extent of back country drained by the navigable rivers of America that empty into the Gulf of Mexico and Caribbean sea	1,241,440
Amazon and its confluents	2,048,480
Other Brazilian rivers	443,000
La Plata	886,400
Total Europe	1,211,370
Total Asiatic	3,429,640
Total American	4,854,770

Parkersburgh Railroad.

The annual meeting of the Parkersburgh and Tygart's Valley railway company took place at Parkersburgh, on the 2d inst. Mr. Cook, the President, resigned, to make way for the election of Mr. Swann, the President of the Baltimore and Ohio road, because he knew him to be more capable than himself, particularly in managing the finances of the company. Mr. Swann was unanimously elected. He delivered an appropriate address, in which he declared that the road would be immediately put under contract, and pursued with all speed to completion.

It is designed to finish the road to Parkersburgh early in the spring of 1855, by which a continuous railway will be opened from Baltimore to Cincinnati, 518 miles in length.

The annexed report of the Parkersburgh company, speaking of its advantages, says:

"To illustrate the advantages to Baltimore of the Northwestern Virginia road, let the line of which it forms a part be compared with that by Wheeling. The railway distances from Three Fork to Cincinnati, are: via Wheeling, 341 miles; via Parkersburgh, 278 miles—showing a difference in favor of the Parkersburgh route of 68 miles, and if the river is adopted, as above, of 91 miles of distance, and from 8 to 12 hours of time.

"It is unnecessary to enlarge upon the advantages to be derived by the country through which the road will pass. Whatever benefits railways ordinarily confer, will be enhanced in proportion to the advantages the route has over its rivals. By its becoming the principal thoroughfare between the East and West, the greatest possible benefits will be secured to the adjoining territory, and the development of its resources of whatever character, will be speedy and certain."

Massachusetts.

Railroad to Westfield.—The Northampton Gazette says:—"The committee who have charge of the books of subscription to the stock of the road from Northampton to Westfield, have obtained satisfactory information in regard to operating the road, should it be constructed, opened the books for subscription to the stock on Tuesday morning. Samuel Williston, of Easthampton headed the list with the generous subscription of $25,000, and he was followed by John Clarke of Northampton, and H. G. Knight of Easthampton, with a subscription of $5000 each. Fifty thousand dollars is the least sum that Northampton ought to think of raising for the road. The work will cost from $160,000 to $115,000 and it can hardly fail to be a fair stock.

Michigan.

Michigan Central Railroad.—This company have contracted with the directors of the Military Tract railroad company, for the construction of the entire line from Galesburg to the junction of the Aurora extension with the Illinois Central—the whole to be completed by the 1st of October, 1853. The line from Quincy to Galesburg is already in a fine stage of progress, so that by October 1853, Chicago will be put in direct communication with the Mississippi at Quincy, as well as at Rock Island and Galena.—*Chicago Journal.*

Ohio.

Toledo, Norwalk and Cleveland Railroad.—Mr. C. L. Boalt, President of the T. N. and C. railroad company, returned home on Friday last, from New York city, where he has been for the last few weeks, attending to the interests of the road. He has been completely successful, having, as we understand, perfected arraugements with the Southern Michigan, and Cleveland, Columbus and Cincinnati, railroad companies, and the companies east of Cleveland, which it is said, will prove highly advantageous to our road, and indeed to all concerned.—*Huron Reflecter.*

Wisconsin.

The Detroit Free Press mentions, that the citizens of Milwaukee are anxious for railroad communication between that city and Chicago, and are moving in the matter.

Milwaukee and Mississippi Railroad.—The following gentlemen have been elected directors for the ensuing year: John H. Tweedy, Edward D. Holton, George H. Walker, Erastus B. Wolcott, William A. Barstow, Sheldon C. Hall, Joseph Goodrich, Alexander Mitchell, Anson Eldred, Eliphalet Cramer, James Kneeland, Adam E. Ray, Joshua Cobb, David L. Mills and John Catlin.—The following are the officers of the company:—John Catlin, President, Edward H. Broadhead, Chief Engineer, Wm. Taintor, Secretary, and Walter P. Flanders, Treasurer.

Mineral Point Railroad.—At the last accounts from Mineral Point, there had been subscribed at Mineral Point to the capital stock of the above railroad, the amount of $76,000.

Maine.

Penobscot and Kennebec Railroad.—At an adjourned meeting of the stockholders of the Penobscot and Kennebec railroad Co., on the 16th inst., the vacancies in the board of directors were filled. The following is the list of directors: John M. Wood, Phineas Barnes, John A. Poor, Henry B. McCobb, and Allen Haines, of Portland; Geo. W. Stanley, of Augusta; and Geo. W. Chamberlain, of Carmel.

We are informed that the most efficient measures have been adopted to put the work in progress.

The board was organized by the appointment of John A. Poor to the office of president; Wooobury Storer, treasurer; and John M. Adams, clerk.

Connecticut.

Another Loan Negotiated.—The $500,000 six per cent bonds of the city of Hartford, Conn., loaned by that city on the authority of the legislature to the Hartford, Providence and Fishkill railroad Co. have been taken at 105. These bonhs are redeemable in 1877, with interest payable semi-annually in New York.

Illinois.

Illinois Central Railroad and Branches.—The pre-emption bill introduced by Mr. Ficklin, in the early part of the present session, having passed both houses of congress was on Monday approved by the president, and has now become a law. In consequence of this law sales have been suspended along the lines of the road on all lands to which

pre-emption attaches, and this information has been conveyed to the land officers by means of the telegraph.—*Nat. Intelligencer.*

American Railroad Journal.

Saturday, August 28, 1852.

Railroad Investments.

In a series of articles recently published in our paper, we endeavored to show, and, as we believe, have done, so that we are not building railroads in advance of the wants of the country. We think we also gave a satisfactory explanation of the reason why most of our roads seek to borrow a portion of the amount necessary for their construction. The fact that we are not building in advance of the wants of our people implies that our projects are legitimate and proper, and consequently must pay. But as this point was only incidentally touched upon in the articles referred to, we propose to elucidate it still further.

We have in progress in this country from 12,000 to 15,000 miles of railroad. During the next three years we shall add at least 10,000 to the extent of line already in operation, say 12,800 miles.

The actual cost of the roads in progress will not exceed $20,000 per mile. The yearly call for railroads for *new* works, will equal about $60,000,000 per annum.

As a general rule, our railroad companies find no difficulty in furnishing whatever is required for construction, with the exception of those articles which have to be purchased abroad, such as the iron and equipment. The means applicable to the grading, preparation of the wooden superstructure, etc., etc., of a southern or western road, cannot be converted directly into *iron*. Nothing but money will do here. Those building railroads have *property* in abundance, and many of them have *money*, but opportunities for the profitable use of this money are so frequent, that those possessing it, prefer to borrow for a project in which they may be interested, to putting their available cash capital into it. If possible, it is for the advantage of the country that our domestic capital *should* be reserved, as means for the further development of our resources.

A liberal estimate for those objects for which our companies seek to borrow, is about $10,000 per mile. The average of loans for new works fall short of this sum.

To pay the interest on this amount, will require a net income of $700 per mile. A net income of $1,500 per mile will pay the interest on the loan, and produce a sufficient sinking fund, properly invested, to pay the principal in ten years.

That our roads will certainly earn the largest sum named, is demonstrated by the fact that the aggregate railroad investment in this country, which now amounts to over $400,000,000, is a profitable one, yielding in dividends a fair return upon the *entire* cost of our roads.

The railroads of New England and New York have cost on an average $50,000 per mile. Their average net earnings will equal seven per cent. The above are the most expensive, and taken together, the least profitable roads in the United States. Their cost is much above the average. A great many of the roads are rival lines, and they embrace among their number the most unproductive projects in the United States.

The roads that we have already constructed pay well. Those in progress must pay far better, for the reason that the business prospects of most of them are equally flattering while their cost is only about one half as much as those in operation.

The money now sought to be borrowed is, as a general rule, for southern and western roads. In those portions of the country there are but a few that have been in operation for any length of time. below we give a table of the gross and net earnings of some of the oldest western roads for the past year:

	Gross earnings.	Net earnings.	Net earnings per m.
Madison and Indianap..	$388,078	$185,080	$2,378
Michigan Central.....	1,069,947	599,017	2,154
Little Miami.....	487,815	297,457	3 554
Columbus and Xenia...	211,631	150,055	2,778
*Cleveland and Colum.	341,680	230,467	1,810

* For six months only.

The average gross earnings per mile of the above roads were $599,017, net earnings, $2,300. With the exception of the Michigan Central, which has a rival line to contend with, their average earnings have increased during the present year more than 25 per cent.

At present the average earnings of the above roads will probably slightly exceed those of new roads just coming into operation; but they do not exceed what the average of such roads will be when they shall have been in operation an equal length of time.

By no possibility, therefore, can we foresee any contingency which can prevent our new works from earning four or five times the amount necessary to pay the interest on their indebtedness. If the ability can be shown, the *will* to discharge their liabilities will not, we think, be doubted.

We may therefore state, as a general rule, the entire railroad investment of the United States to be, in the aggregate, a profitable one, yielding a net income on its cost equal to our legal rates of interest, and that the income of our new works will exceed this rate, as they have the advantage of all the experience acquired in railroad construction, and will cost much less, while they have promise of as equally lucrative traffic, as the average of roads in operation.

The lien ordinarily created by a mortgage bond, covers the entire property of the road, and the mortgage gives the bond holders a right to assume the control and management of the road, in case of failure on the part of the company to meet their liabilities. We can, therefore, conceive of no better or safer investment than that in railroad bonds, issued upon a good line.

It will be borne in mind that the railroad vastly increases the ability of those interested in it to meet their obligations. The fact, too, that the money borrowed is for a legitimate *business* transaction, and that it becomes instrumental in increasing the value of the entire property of the community to an extent exceeding many times the amount borrowed, adds vastly to the safety of the security. Business men fully appreciate the importance of the fact, that the success of the *borrower* adds vastly to the safety of the loan.

In every branch of business some losses must be incurred; even in the most successful. It would be almost impossible for all our railroad projects to escape this universal rule. But that the railroad system of the country is sound, and will bear the closest scrutiny, there cannot be a doubt. It is in the fullest confidence of the truth of this assertion, that we invite attention to, and have endeavored to present the whole system in all its working before the public. Had we believed otherwise, policy would have dictated an entirely different course; one of concealment instead of display. But, like everything that is really strong, the more it is investigated the greater the confidence secured to it.

Railroad to Hudson's Bay.

The Liverpool Chronicle states that an English company have contracted to construct 100 miles of railroad from Quebec towards Hudson's bay, at £10,000 per mile, and that the line is intended to be pushed rapidly forward until it reaches that great Northern sea. The whole distance is 600 miles. For ourselves, says the New York Journal of Commerce, we do not see what there is to support a railroad in that direction, but if the Canadian government or the British government see fit to build it, we certainly can have no objection. On the contrary, we should suggest the expediency of a line of steamers from the northern terminus of the road to the North Pole. It would be delightful in hot weather to run up to North Pole city, and take a glass of ice water fresh from the hands of old Boreas.

Ohio and Mississippi Railroad.

The Aurora, Ia., Standard, says this magnificent work is now progressing finely. It has been located permanently as far as Miller's Mill, on South Hogan. It follows the canal from Cincinnati to North Bend—crosses the Miami about a quarter of a mile above its mouth, passes through William street in Lawrenceburgh, near Henry Walker's residence and through the public square, in Aurora; then up the valleys of South Hogan and Whittaker's Fork to Table Land. The work of grading was commeneed at Miller's Mill last Monday, and yesterday quarries were opened near this city. From the way the engineers on this end of the route push the work ahead, we have every reason to believe it will be completed as soon as the magnificence of the work will admit.

Florida.

Brunswick and Florida Railroad.—Mr, Ephraim Alexander has contracted, on behalf of himself and Dr. Collins, of Macon, with the Brunswick and Florida railroad company, to construct the road from Brunswick to Thomasville, in the direction of Pensacola; also a branch road from Thomasville to Albany, Ga., and another from Thomasville in the direction of Tallahassee, to the Florida line. The roads are to be finished in about three years, at a cost of somewhat over three millions of dollars.

Seats for Railroad Cars.

The Utica *Observer* notices an improvement for railroad cars, the invention of Mr. A. B. Buel, of Hampden, Oneida county, New York, which promises to add much to the comfort of travelers, especially in the night. By means of a double back, one of which can be elevated to suit the inclination of the occupant the seat can be converted into a comfortable lounging place.

New Orleans and Nashville Railroad.

The Aberdeen, Miss., Democrat says that $270,000 worth of stock in the New Orleans and Nashville railroad has been taken in Monroe county, Miss.

Canada.

St. Andrews and Quebec Railroad.—A locomotive is already in motion on a part of this road, and ten miles are promised to be opened in two months and the line is already cleared for 20 miles.

Air Line Railroad.

The New Haven Journal says the road from that city to Middletown, being a portion of the proposed air line road, will be put under contract as soon as the New Haven subscriptions have been renewed. This is deemed necessary, in order to avoid all dispute upon the validity of the subscriptions.

Michigan.

Michigan Southern Railroad.—Messrs. John B. Jarvis, George Bliss, Charles Butler, Elisha B. Litchfield, E. C. Litchfield, Hugh White, John Straker, William L. Marcy, and John S. Barry, were elected directors of the company, at the last meeting of the stockholders. John B. Jarvis was elected President.

Stock and Money Market.

The stock market during the present week contrasts with the previous rise, which was altogether a speculative and illusory one, taking place at a time, when many large operators were out of town and utterly baseless in itself. The depression and reaction in the stocks thus elevated, produced a counter current against the steady rise of the stable stocks, which are appreciating under the operation of a sufficient financial cause. The banks calling in their loans for the purpose of raising the rate of interest, the shipments of specie to Europe and the payment of large sums for duties during the week have contributed to a temporary scarcity of money.

Thursday, 19th August.—The market fluctuated considerably. Large sales were made, but many of the fancy stocks seemed as if parting company with the more solid investments. 1750 shares of Harlem were sold, closing at 73¼, declining ¼. L. Island 22½. Erie 88¼. Reading 92½. Hudson R. 69¼. Norwich 56¼. The Western railroad and other premium stocks on the contrary rose. Madison and Indiana 110. North Indiana 121. N. Y. and New Haven sold at 114¼. Utica and Schenectady 139. Rochester and Syracuse 122. Roch. and Niagara 109¾.

Friday, 20th August—Something like a panic prevailed among the operators in fancy stocks and the most of them fell off heavily. Erie stood 88. Reading 92¼. Norwich and Wooster 56¾. Hudson R. 69½. Long Island and Harlem advanced slightly. L. I. 22¼, and Harlem closing at 73¼. Bonds were firm. Erie convertibles of '71 and '62 selling at 99. Government stocks were firm and the upward movement of the paying stocks went steadily on. Madison and Ind. 110¼. Utica and Schenectady 140. Syr. and Utica 139. Roch. and Syracuse 122.

Saturday, 21st August.—Rather more activity existed to-day after the depression of yesterday, but the tendency was decidedly downward in prices. Large sales were made in Erie which closed at 87¾ Reading went up ½. Hudson River fluctuated considerably, and closed at 69¼, Harlem 73¼, Stonington 59½. Some slight changes took place in Gov. and State stocks, but in these, as in the solid railroad stocks and railroad bonds, there seems to be a steady tendency upward. N. Y. and N. H. 115, N. Ind. 120½, Roch. and Syra. 122. The steamer Pacific took out $616,928. The Sub-Treasury showed this evening a balance of over six millions in its vaults.

Monday, 23d August.—The dullness in the fancies prevails with some trifling exceptions, Erie closed at 87½, Harlem 73. Reading went up, closing at 93¼, Nor. and Wor. 56, Stonington 60, an advance. The coal stocks all went up as well as Reading. The investment stocks were steady, Roch. and Syr. 122, N. Ind. 121, Mich. South. 121, Mad. and Ind. 109½. Large transactions took place in Erie bonds, those of '62 brought 99½, '71, 98¼. Large drains of money for shipment and the payment of duties, have drawn largely on some of the banks, but their wants were soon supplied.

Tuesday, 24th August.—The fall in stocks continueb to be very marked all the fancies have in the decline. The closing prices of the leading stocks were Erie 86½. Harlem, a heavy amount was sold closing at 71½. Hudson River 69½. Norwich and Worcester 54¾. Reading rose slightly 94. Stonington 59. Government, State and investment stocks generally seem in good demand. New York and New Haven 114¼. Michigan Central 112. Northern Indiana 121. Rochester and Niagara Falls 109. There seemed to be some check to day to the hitherto abundant supply of money.

Wednesday, 25th August.—The decline of the week, as a general rule, continues. One cause may be the calling in of loans by the banks, and the increase of the rate on call loans to 6 per cent.—Heavy operations, at a great falling off in Nicaragua Transit Co. have also affected the market. Erie closed at 86¾. Harlem 72. Hudson River 69¼. Reading 94½, a rise. Norwich and Worcester 54½. Long Island 22 Investment stocks were steady but inactive. Northern Ind. sold at 120¾. Michigan Central 112. N. Y. and New Haven 114½. Rochester and Syracuse 122. The steamer took out $632,547 in specie, making in all, $1,249,495 shipped during the week ending to-day.

Railway Share & Stock List;

CORRECTED WEEKLY FOR THE

AMERICAN RAILROAD JOURNAL.

NEW YORK, AUGUST 28, 1852.

GOVERNMENT AND STATE SECURITIES.

U. S. 5's, 1853	101½
U. S. 6's, 1856	108¾
U. S. 6's, 1862	115
U. S. 6's, 1862—coupon	115½
U. S. 6's, 1867	118⅜
U. S. 6's, 1868	118½
U. S. 6's, 1868—coupon	119½
Indiana 5's	91
Indiana 2½	52½
" Canal loan 6's	95½
" Canal preferred 5's	48½
Alabama 5's	95
Illinois 6's, 1847	82½
Illinois 6's—interest	52½
Kentucky 6's, 1871	109¾
Massachusetts sterling 5's	——
Massachusetts 5's, 1859	——
Maine 6's, 1855	——
Maryland 6's	108
New York 6's, 1854-5	108¾
New York 6's, 1860-'61-'62	119
New York 6's, 1864-'65	120
New York 6's, 1 y., 1866	121
New York 5½'s, 1860-'61	110
New York 5½'s, 1865	111
New York 5's, 1854-'55	105½
New York 5's, 1858-'60-'62	107
New York 5's, 1866	110
New York 4½'s, 1858-'59-'64	101
Canal certificates, 6's, 1861	——
Ohio 6's, 1856	105
Ohio 6's, 1860	109
Ohio 6's, 1870	115
Ohio 6's, 1875	116½
Ohio 5's, 1865	105½
Ohio 7's, 1851	105½
Pennsylvania 5's	96½
Pennsylvania 6's, 1847,-'53	91
Pennsylvania 6's, 1879	99⅜
Tennessee 5's	100
Tennessee 6's, 1880	107
Virginia 6's, 1886	111

CITY SECURITIES—BONDS.

Brooklyn 6's	105
Albany 6's, 1871-1881	105
Cincinnati 6's	103
St. Louis	96½
Louisville 6's 1880	95
Pittsburg 6's, 1869-1871	100
New York 7's, 1857	110
New York 5's, 1858-'60	101
New York 5's, 1870-'75	106½
New York 5's, 1890	106½
Fire loan 5's, 1886	——
Philadelphia 6's, 1876-'90	104½
Baltimore 1870-'90	108½
Boston 5's	102

RAILROAD BONDS.

Erie 1st mortgage, 7's, 1867	113½
Erie 2d mortgage, 7's, 1859	108½
Erie income 7's, 1855	98½
Erie convertible bonds, 7's, 1871	98½
Hudson River 1st mort., 7's, 1869	107½
Hudson River 2d mort., 7's, 1860	97½
New York and New Haven 7's, 1861	106½
Reading 6's, 1870	89
Reading mortgage, 6's, 1860	95
Michigan Central, convertible, 8's, 1860	111
Michigan Southern, 7's, 1860	101
Cleveland, Col. and Cin. 7's, 1859	114
Cleveland and Pittsburg 7's, 1860	102
Ohio and Pennsylvania 7's, 1865	102½
Ohio Central 7's, 1861	96

RAILROAD STOCKS.

[CORRECTED FOR WEDNESDAY OF EACH WEEK.]

	Aug. 19.	Aug. 26.
Albany and Schenectady	107	107
Boston and Maine	106¼	108
Boston and Lowell	—	109½
Boston and Worcester	104	106
Boston and Providence	89	90
Baltimore and Ohio	82½	83½
Baltimore and Susquehanna	29½	30
Cleveland and Columbus	—	—
Columbus and Xenia	—	—
Camden and Amboy	146	—
Delaware and Hudson (canal)	126½	130
Eastern	96	98
Erie	88¾	86¼
Fall River	—	—
Fitchburgh	103	105
Georgia	—	—
Georgia Central	—	—
Harlem	75½	72
" preferred	111½	111
Hartford and New Haven	—	127
Housatonic (preferred)	35	35
Hudson River	69¼	69
Little Miami	—	—
Long Island	22½	22
Mad River	—	99
Madison and Indianapolis	112⅞	110
Michigan Central	114¾	111¾
Michigan Southern	119¾	120¾
New York and New Haven	113	114¾
New Jersey	134	134
Nashua and Lowell	—	—
New Bedford and Taunton	—	117
Norwich and Worcester	56	54¾
Ogdensburgh	26	26½
Pennsylvania	46¾	46½
Philadelphia, Wilm'gton & Balt.	32½	32
Petersburg	—	—
Richmond and Fredericksburg	100	100
Richmond and Petersburg	35	35
Reading	92¾	94½
Rochester and Syracuse	—	122
Stonington	62	59½
South Carolina	—	—
Syracuse and Utica	132	135
Taunton Branch	115	115
Utica and Schenectady	136½	140
Vermont Central	14½	14½
Vermont and Massachusetts	20	23
Virginia Central	—	—
Western	104½	104½
Wilmington and Raleigh	57½	57½

Railroad Lanterns.

Our readers will find an advertisement of every variety of railroad Lanterns in another page.

Railroad Rivalry.

It is an old saying that "competition is the life of business," but however old or homely the phrase, to a certain extent, yet, there is a point beyond which many kinds of business cannot compete profitably. At least it seems so to us. If more persons and more capital are embarked in any particular branch of business at a given point, than the wants of the community require, then it seems to our mind that just so far as such is the case, to just so great a degree as this is allowed to be prosecuted, to just that extent, and no further, will the business be overdone and the profits on what is done become so reduced by competition as to be inadequate to the compensation of those employed in its transaction. As a general proposition the truth of this will be universally admitted. It strikes us, however, that like all general rules, this too has its exception. And if it has an exception, that one is in favor of railroads in this country. In the business of constructing and managing railroads in North America, there is, in our estimation, nothing which is likely to result in so much good to the country, as a lively competition. Of course we refer, in speaking of railroads in this connection, to legitimate projects, roads built in appreciation of the wants of the community. We do not wish to be understood to include projects started by a few interested individuals out of purely speculative motives. With such roads or proposed roads as do not command the sympathies of the inhabitants along their respective routes, or of the business men and capitalists of cities and large towns to be benefitted directly by their construction, sufficiently to insure their subscriptions or endorsement to that end, we disclaim all fellowship and sympathy, and class them among speculative schemes which may result well or ill as fortune favors or frowns upon, their management.

The point we wish to establish is simply this:—That a railroad constructed on a line where the people in its vicinity will subscribe stock and loan their credit in amounts, necessary to insure its completion, will result advantageously to all parties interested in it; provided it is constructed on an economical plan, and *prudently managed*.

Whenever a railroad can be constructed on this principle there will be no danger from rivalry.—There will be no danger that the new road will lack employment at remunerating rates, nor will there be any danger that it will cause such a diversion of business from any other route as to be detrimental to the ultimate interests of either, or cause any permanent falling off from their revenues.—The reasons for these conclusions are obvious; almost self-apparent. A line of road is built through a densely settled country, far from a good market. What are its effects? Why the farms that were so large and poorly cultivated formerly, are now divided up between the old settlers and the new who have been induced to come in because by means of the railway they can have an eligible market.—The lands are tenfold nearer market than they were previously, and nearly tenfold higher in value.—Three hundred miles is a ten day trip for a team in fair weather, and it is only one day for an iron horse be the weather fair or foul. The lands are now highly cultivated and their produce commands cash at a good price in the (now) neighboring city. "But, does not this increase of producers cause great embarrassment to the old farmers who live near the city and used to supply it with all the farm produce, green vegetables, etc?" asks a good hearted, humane individual. "His land cost him a high price, he must be heavily taxed, and pay great wages for his labor, while it would seem that the great influx of produce caused by the opening of so many new railways, must reduce the prices of it in market and destroy the profits of his farm."—Well, and so it would were there not immutable, unchangeable laws, which govern the system of trade. If the community through which the railroad passes were the *only* party benefitted, most undoubtedly the city farmers and dealers would suffer. But such is not the case. Every railroad opened exposes a new avenue of trade to the city, and if the city buys more produce the country buys more goods; merchandize and manufactures. The more railways are built where there is a use for them, the more facilities are offered for emigration.—Emigrants in turn must have supplies from the city which they eventually pay for in produce, and all this gives such an increase to the business of the city that its population augments with greater rapidity. It extends its bounds and shortly absorbs within its limits many of those farms, whose owners our good hearted friend of the last century was just fearing would be ruined by the large supply and low price of produce; while the owners secure independent fortunes by such absorption.

But, now, how is it about overstocked markets and low prices? Do the cities complain of surfeit? Or are prices ruinously low? Twelve years ago this city had a population of 317,000 souls, scarcely any railroads, and depended upon the North river barges and steamers with some assistance from Jersey, for her farm produce, milk, and fruit. Westchester and Long Island furnished a little milk, and green produce. The milk was sloppy and impure, the farm produce was wilted and stale, and poultry, eggs and butter were scarce. Well, twelve years are passed, and what are the results?

We have a population in this city and suburbs composed of persons who do business in the city of at least 750,000 souls,—over one hundred per cent increase; we have railways stretching north, east, south and west, in continuous lines, with their heavy trains of cattle, horses, produce, fowls, eggs, butter, cheese, cabbage, corn, and potatoes as well as all other kinds of produce for table use, and still the cry is "give," "give," and "how scarce and high all things are." Our beef cattle, and prairie chickens are fattened on the prairies of Illinois; our pork both fresh and cured is from all the western states; our best flour and wheat from Canada and Michigan; our corn from the Wabash and Illinois valleys, and our butter, eggs, poultry, peas, beans and green corn, tomatoes, and numerous other delicacies are from Ohio, Pennsylvania, and N. York, while New Jersey, North Carolina and Georgia on the south furnish us fruits and many other luxuries early in season, and yet all these things are as scarce as ever, and prices are quite as high.

Where are Westchester, Harlem, Long Island, Bergen, Newark, Elizabethtown, Rahway, and many others of the old gardens and dairy places of New York? Their gardens and cow pastures are now covered with the suburban residences of New York merchants, mechanics and workingmen, with now and then, one even more costly than the rest, occupied by the rich old farmer or milk-dairy man, who has sold his land for village lots and is now living in affluence. And yet, we can recollect very well, when the Erie railroad first brought in a train of milk cars, and the Harlem followed with another, these same old worthies were deadly opposed to railroads as inimical to their interests, despoilers of their trade and consumers of their profits.

From these facts we may see the effects of railroads on all fertile countries as well as all large cities whither they tend or where they terminate. As a general rule it will be found that a railroad constructed through a fertile section of country will induce a sufficient increase of business to employ one track constantly, and eventually a double track will be needed, and hence, roads should be located with reference to local business, for this is their dependence. They should be located with an eye to the accommodation of the public in so far as the public and local interests can *both* be accommodated. We say this because so much stress is apt to be laid upon the probability that "our route" being the "shortest route," or the "most feasible" route from "everywhere" to "everywhere else and consequently every body must go over it." Why take so much pains to make this fact appear to the public when it is not the most important fact to you?

It is well known that passengers and mails will go by the route where there is most business. If then, your route is destined to be a through route, strive to serve local interests. This will build up business interests and connections with people abroad, who will take your route in their line when they travel. You may think your route the shortest to-day, and to-morrow some new route will spring up, perhaps never dreamed of before, which will drive you to a dependence on local business. Such things have happened ere this, and doubtless will happen again. And, it is for this reason, that a road should never, as a general rule, be constructed simply as a through route, and regardless of local business. It is liable to lose a portion of its through business at any moment, but local business partly built up by it, and which it was constructed to foster, never can desert it. Each will indemnify the other, and the work will prove mutually advantageous to those interested in it. Two roads may run parallel with each other through a fertile country, so they be twenty-five miles apart, and both will have all they can do. What folly then to look upon each other as rivals! What folly to run prices down so low as to make both unprofitable by allowing the loss on through business to eat up the profits on local! There are many other features of this kind of rivalry which we may examine at some other time, but this article is already much more lengthy than we had intended.

*

Canada.

The Trunk Railway.—A proclamation has been published authoiising private companies now existing or hereafter to be created by the legislature to construct a main trunk line of railway from opposite Quebec, to the village of Richmond on the St. Francis river, thence by the St. Lawrence and Atlantic railroad to Montreal, thence to the city of Kingston on some point in its vicinity on Lake Ontario or the St. Lawrence; thence to the city of Hamilton, or some convenient point on the Great Western road, and terminating at the Detroit river.

Maine.

Penobscot and Kennebec Railroad.—At the annual meeting held at Bangor, July 27th, the following gentlemen were chosen directors: John M. Wood, Nathan Camigs, Ira Crocker, J. C. Churchill, Wm. Kimball, of Portland, Samuel Pickard, of Lewiston, and Geo. W. Stanley, of Augusta.

Indiana.

Peru and Indianapolis Railroad.—A letter from Capt. E. G. Barney, the Chief Engineer of the above road, addressed to E. W. H. Ellis, Esq., the President, briefly enumerates its features. The road connects the capital of Indiana with the Wabash and Erie canal, at Peru, passing through the county towns of Hamilton, Tipton and Howard counties. The character of the road for grades and curves is extremely favorable, the tangent line is 59 miles, 4584 feet long, and the curved line, 11 miles, and 4140. The average ascent per mile on grades running north is 17 feet, running south 19 8-10. The superstructure is laid on a well ballasted road, the rail of the T pattern weighing 60 lbs on white oak cross ties 20 inches apart. The total cost including depots, locomotives, passenger and freight cars, will not exceed $1,150,000. The assets are stated as follows:

Total subscription to capital stock.....	$501,000
Probable increase to capital stock.....	99,000
Seven per cent bonds.....	600,000
Value of depot grounds and right of way.	43,275
Value of "*flat bars*" *to be taken up*.....	20,000
Total.....	$1,263,275

Toledo is the common point to which freights from Indianapolis tend during the Lake navigation. Capt. B. presents the following table of freights on a ton to Toledo by a number of the railroads of the State.

Route	Total cost per ton to Toledo.
Indianapolis via Terre Haute.....	$5,11
" " Lafayette.....	4,01
" " Gosport.....	5,90
" " Bellefontaine.....	4,43
" " Richmond.....	4,52
" " Lawrenceburgh	4,97
" " Madison	5,64
" " Peru.....	3,46

The Peru and Indianapolis railroad will draw produce from 15 of the richest counties in the State —the population of these counties by the late census, was.....184,016
Total product in tons.....453,623
Land in cultivation acres.....851,712

The P. and I. R. R. connects, besides the Wabash and Erie canal before mentioned, with the line proposed from Toledo through Indiana and Illinois, and the extension by way of Goshen to the Southern Michigan and Northern Indiana railroad. The gross annual receipts are estimated at $330,000 and the net at $198,000. The 1st of January, 1854, is the period when the road is expected to be completed.

Georgia.

The South-western Railroad.—This road was regularly opened for business on the first August, 1851.

Receipts for the year ending July 31, 1852, as follows:

For freight.....	$80,878 44	
" passengers.....	46,016 50	
" U. S. mail.....	2,500 00	
Total earnings.....		$129,395 38
The current expenses during that period have been.....		57,535 17
Leaving a balance of net earnings of.		$71,335 17
Out of this sum the directors have declared a dividend of eight dollars per share, amounting to.....		$44,536 00
Leaving a surplus of.....		$26,999 17

The total number of passengers transported during the year is 42,649; being an average of 116¼ per day—number of bales of cotton transported 45,476—total number of miles run by trains 46,475.—*Macon Telegraph.*

Blossburgh and Corning Railroad.

Below we give an extract from a letter of an intelligent gentleman, who has recently had an opportunity of inspecting the above work, which is the great northern outlet for the bituminous coal fields of Pennsylvania. This road is of vast consequence not only to the coal regions, and to western and central New York, but is to become an important link, in the great central line of road thro' the State of Penn.

To the Editor of the American Railroad Journal.

H. V. Poor, Esq:

Dear Sir: I have just passed over the route of the railroad from Corning to this place.

That part in the State of New York is now called the Corning and Blossburgh railroad—the part in Pennsylvania is called the Tioga railroad—the latter, 26 miles, the former, 14 miles long.

These roads you are aware were originally constructed with the strap or flat bar rail, and proved to be entirely insufficient to accommodate the business of this region.

The road is now being relaid with first quality iron, Erie railroad pattern, and upon the 6 feet gauge. The short curves have been straightened and the grade made, at all parts of the road, gradually and uniformly to descend from the coal mines to Corning. The work along the whole length is being actively pushed forward and about two-thirds of the road is relaid. New engines and cars will be ready to be placed on the road as soon as it shall be completed.

The part of the road finished is the best I have yet seen. Ties very large and good and close together, ballasted with gravel and well laid. It is indeed a very superior road and will give a suitable opening to the bituminous coal. Of this mineral there is here an inexhaustible supply, as I am convinced by a personal inspection of many of the veins, and of a superior quality.

The quantity to be sent over this road and distributed by the New York and Erie railroad, and its branches, and the New York canals, will be immense.

Surveys have been made to connect this road with the Williamsport and Elmira railroad at or near Ralston, which prove its practicability. Little has been said by the friends of the Tioga railroad of this route, as the proper one to connect the Pennsylvania and New York system of public works; but from the favorable results of their surveys, and from the fact that most of the business to pass over any such connexion, must come from points *west* of Elmira, it is now reduced to a certainty that this union will be made and road finished as soon as the Susquehanna road is completed to Williamsport.

You may imagine how immensely valuable these roads will become and within a reasonable period.

Pennsylvania.

Alleghany Valley Railroad.—The location of this road between Pittsburg and Kittanning, is going on rapidly. For some miles below Kittaning, as far as the engineers had gone, they found the line very favorable, level, and nearly straight. The negotiations for the right of way have already been commenced, and all on the line were disposed to treat the company liberal.

Louisiana.

The citizens of Claiborne have contributed $1000 towards a preliminary survey of the proposed railroad in North Louisiana, the Vicksburg, Shreveport and Texas railroad, is the title of the project.

Railroad Looking Glass.

The European roads have adopted the plan of placing a looking glass before the engineer of a locomotive in such a way as to enable him to see the entire train without turning. The locomotives on the line from Brussels to Antwerp, have recently been fitted up in this way.

New York and New Haven Railroad.

Mr. W. P. Burrall has resigned the Presidency of the Housatonic railroad, and D. J. Sperry, Esq., of Stockbridge, has been elected in his place. Mr. Burrall is fully occupied by his duties as vice president of the New York and New Haven road.

Mr. Marshall, president of the Southern railroad company is on a mission to the north to make arrangements for its extension towards the east.

gines, which were furnished by David Matthew, constructed according to the specification attached to his patent.

They are by far the best smoke pipe and spark arrester that we have tried or seen.

No inconvenience from sparks or cinders is suffered by the passengers; nor is the draft impeded.

We consider them a great improvement, and regard them as almost indispensable in our business.

JOHN WILKINSON, President.

—

Office of the Auburn and Rochester R.R. Co.,
Canandaigua August 26, 1842.

This may certify, that there has been in use on the Auburn and Rochester railroad, for the last two years, eight of Matthew's "Patent Spark Arresters," which have given the most perfect satisfaction. From the use of the Arresters on this road, and what I have seen of them elsewhere, I have no doubt but that they are the best in use in the country.

R. HIGHAM,
Supt. and Engineer A. & R. R. R.

To DAVID MATTHEW, Machinist.

—

Auburn and Syracuse R. R. Office,
August 29, 1842.

Dear Sir—The three Spark arresters of your patent, which we have in use on our road, have given perfect satisfaction, and we consider them superior to any now in use, combining as they do the power of arresting the sparks and cinders, without affecting the draft of the engine. Respectfully yours,

E. P. WILLIAMS, Superintendent.
M. W. MASON, Supt. of Machinery.

To DAVID MATTHEW, Esq.

—

Rochester, August, 1842.

We, the undersigned, have used D. Matthew's Patent Spark Arresters and Chimney on the locomotive engines used on the Auburn and Rochester railroad, of different manufacturers, viz: Rogers, Ketchum & Grosvenor, Norris, and Eastwick & Harrison, for more than one year; and all the engines using these Spark Arresters and Chimney have made steam as free as with any other pipe we have ever used; and we believe the draft is as good as any other pipes of the same dimensions, and prevents the escape of sparks and cinders. There has not been any expense for repair on the Spark Arrester or Chimney since they have been put on the locomotive engines; and we further think that they will last for years with little or no repairs.

THOS. SNOOK, Supt. M. P.
CHARLES W. HIGHAM,
N. C. MARTIN,
WM. HART,
Locomotive Engineers.

—

Syracuse, August 21, 1842.

We, the undersigned, locomotive engineers on the Syracuse and Utica railroad, have used during the last two years, David Matthew's "Patent Spark Arresters and Chimneys," and on our engines we have been able to generate steam as freely as with any other pipe we have ever used. The draft is as strong and free as that of an open pipe of the same diameter, and most effectually prevents the escape of fire and cinders. There have, as yet, been no repairs required to any of these pipes, and we believe they may be used for years with but trifling expense to keep them in perfect order. We certainly consider this pipe a great improvement over any other with which we have been acquainted.

DAVID BEGGS, Supt. M. P.
PETER GRANT,
WILLIAM McGIBBON,
WILLIAM CESSFORD,
JAMES BONNER,
JOHN VEDDER, Jr.,
Locomotive Engineers.

—

Syracuse, April 4, 1847.

Mr. DAVID MATTHEW:

Dear Sir—Your letter came duly to hand, in relation to the Spark Arresters. Those which we use are all of your patent; and on the neighboring roads we got others to try, but they were not good, and we had to substitute yours.

I am, dear sir, yours respectfully,
DAVID BEGGS,
E. M. P. Sy. and Utica Railroad.

Utica and Schenectady Railroad Office,
May 5, 1847.

Mr. DAVID MATTHEW:

Sir:—In regard to the "Spark Arrester." several kinds have been tried; but yours, as you left it, has been constantly in use. We have your patent on fifteen engines, and use no other kind. Nothing tried here has been so acceptable to us.

Respectfully your ob't serv't,
WM. C. YOUNG,
Supt. and Eng. U. & S. R. Co.

—

Locomotive Works, Philadelphia,
February 2, 1850.

Mr. DAVID MATTHEW, Vulcan Works, Baltimore:

Dear Sir:—Your letter of 30th ultimo reached us only this morning, and in reply we would state, that we have not had much opportunity of judging of the merits of your Pipe in comparison with others, but that on the Utica and Schenectady Railroad, where we have a number of our engines running, your Pipe is exclusively used, and preferred to all others. Yours. very truly,

NORRIS, BROTHERS.

—

Patterson, N. J., Feb. 6, 1850.

Mr. DAVID MATTHEW, Baltimore:

Dear Sir:—Your favor of the 31st January is received. When we used your Spark Arresters on our locomotives they gave entire satisfaction, and we should have continued to use them if we could have procured them; but the gentleman at Catskill, who, we understood, had made arrangements with you respecting the sale of the right to use them, refused to furnish them, except there was an agreement made for selling the right to the whole road. This we could not do, which compelled us to procure our Spark Arresters elsewhere.

We have often been applied to for your Spark Arresters; but as we could not procure them, we have been obliged to furnish others.

Your Spark Arresters have been highly spoken of by all those that we know who have used them, and we think they are equal to any in use.

Very respectfully,
ROGERS, KETCHUM & GROSVERNOR.
Per S. J. ROGERS.

—

Utica and Schenectady Railroad Office,
Schenectady, Feb. 19, 1850.

DAVID MATTHEW:

Dear Sir—I received yours of January 25th, in reply to smoke-pipes, we consider the Spark Arrester of yours, used by us, far superior to any in use.

Respectfully, your obedient servant,
C. VIBBARD, Sup't U. & S. Railroad.

—

Mr. DAVID MATTHEW—

Dear Sir:—In reply to your enquiries I have to state, that I have been engaged in the manufacture of your "Spark Arrester and Smoke-Pike for steam engines," for over ten years last past.

I have no hesitation in saying, that your "Spark Arrester is the best that has ever been in use in this country. I have seen all others, or nearly all others tried, but your invention, as patented 31st December, 1840, possesses all the requisites for railroad and other uses in a degree decidedly superior to them all. I am now employed as an engine builder in the establishment of the Hudson River Railroad, and after a careful trial of all the spark arresters and pipes most esteemed in this country, we have found yours to be decidedly the best, and, in this opinion I am supported by the chief superintendent of motive power of that road, who has so expressed himself to me.

I am, very respectfully, your ob't serv't,
JOHN TAYLOR.

—

DAVID MATTHEW, Esq:

Dear Sir—Your "Patent Spark Arrester," has been in use on our Locomotives since 1840, during which time we have tried several of a different construction. We can recommend yours as being the most effective and economical of any used by us. Little or no inconvenience from sparks is suffered by passengers; nor is the draft obstructed. From the best estimate we can make they can be kept in repair for about ten dollars each per year.

C. VIBBARD, Superintendent.
V. BLACKBURN, Mast. Ma.

Office of the Syracuse and Utica R. R. Co.,
Syracuse, August 7, 1851.

My Dear Sir:—I am glad that you obtained your right of building Spark-Arresters, and most certainly it is the best in use, and generally approved of. I think they are using them pretty generally on the Hudson River R. R., and all the other patents which have been made since the date of yours, are copies in some degree, from yours. Anything that I can do to forward your interests in this matter will be done with cheerfulness. I think of going to Philadelphia this summer, and shall call on you.

Yours, very truly, D. BEGGS.

—

Utica and Schenectady Railroad Office,
Schenectady, August 30th, 1851.

This is to certify that Mr. David Matthew's Spark Arresters have been used on a number of the locomotives constructed by the Newcastle Manufacturing Company. They have, in all cases, given entire satisfaction. With them the exhaust pipes can always be made sufficiently large to ensure a full discharge of steam; while at the same time, they afford the necessary draught, and completely stop the sparks. I cheerfully recommend them to the attention of railroad companies and manufactures of locomotive engines.

ANDREW C. GRAY,
Pres't Newcastle Manufacturing Co.

—

Albany, September 8th, 1851.

Gen. W. SWIFT:

Dear Sir—This will serve to introduce to your favorable notice Mr. David Matthew, who is the inventor, and holds the patent for a Spark Arrester, which has been used by many of our railroads on their locomotives. I consider it a valuable improvement, and do not doubt but Railroad Companies will generally use it. Yours respectfully,

ERASTUS CORNING.

—

Office Hudson River Railroad,
New York, February 14, 1852.

D. MATTHEW, Esq.,

Dear Sir—I am so little acquainted with the merits of different kinds of Spark Arresters, that I do not feel competent to give an opinion for publication. I know that your Arrester is a good one, and has been highly esteemed on the roads where I have been employed. But I have not sufficient practical knowledge of the subject, to venture any comparison of its merits with other kinds of arresters.

Yours truly, O. H. LEE, H. R. R.

—

Office of the Hudson River R. R.,
31st st., New York, May 16, 1852.

Mr. DAVID MATTHEW:

Dear Sir—I have been acquainted with your Spark Arrester since its introduction, and have carefully watched its operation in comparison with many others. I have no hesitation in saying, that as a Spark Arrester without diminution of draft, it has no equal in use. I have been able to use a much larger exhaust pipe than with other pipe, and, from experiments recently made, I am satisfied that the Cap, or Spark Arrester, is no impediment to the draft of the open chimney. Very respectfully,

HENRY WATERMAN,
Superintendent of Motive Power.

—

I have this day purchased the right to use the above pipes on the Saratoga and Washington railroad, and concur in all that Mr. Sargent has said of them. J. VAN RENSSELAER,
Superintendent S. & W. R. R.

Saratoga Springs, May 22d, 1852.

—

Albany and Schenectady Railroad, Albany.

Having used Mr. Matthew's Spark Arrester on our engines, and considering it a valuable invention, we have purchased the right to use it on our road. E. C. M'INTOSH, President.

—

Schenectady and Troy R. R. Office,
Troy, July 20th, 1852.

I have this day purchased the right to use Mr. Matthew's Spark Arrester on this road; I have been acquainted with this Spark Arrester for ten years, and consider it the best that has come under my notice. EDWARD MARTIN,
Superintendent S. and T. R. R.

Office Rensselaer and Saratoga Railroad,
Troy, May 22d, 1852.

This may certify that I consider the Patent Locomotive Smoke Pipes and Spark Arrester of D. Matthew's as more economical and safe than any now in use. It is more durable, and throws less fire and cinders, without impairing the draft, they have been in constant use upon the different roads under my charge since 1841, as have all the other various kinds now used, and after this long experience and careful observation, I am entirely satisfied that those invented by Mr. Matthew are decidedly the best, and I have secured the right to use the same by this company, and the Saratoga and Schenectady railroad company, by purchase made yesterday. L. R. SARGENT, Superintendent.

—

I have this day purchased of Mr. Matthew the right to use his Spark Arresters on the Syracuse and Utica railroad. I believe it is the best pipe there is. JOHN WILKINSON,
President S. & U. R. R.

Syracuse, July 16, 1852.

—

I have this day purchased of Mr. David Matthew the right to use his Patent Spark Arrester on the Rochester and Syracuse railroad, during its present term, and renewal or extension, believing it to be the best Arrester now in use.
CHARLES DUTTON, Supt.

—

Superintendent's Office
Buffalo and Rochester Railroad Co.,
Buffalo, July 29, 1852.

David Matthew, Esq., has this day conveyed to this company the right to use his Spark Arrester, patented in 1840. It has been in use on this road for some years past, and gives better satisfaction than any other improvement claiming the name of Spark Arrester. HENRY MARTIN,
Superintendent, J. W.

—

☞ REFERENCE is made to the following Gentlemen and Companies, with whom Agencies have been established for the sale of the Spark Arrester, and rights under the Patent:—

Erastus Corning, Esq., Albany, N. Y.; Messrs. Rogers, Ketchum and Grosvenor, 74 Broadway: New York city, and at their Works in Patterson, N. J.; The New Jersey Locomotive Machine Company, at Patterson N. J., James Jackson, President,—address also at Patterson, Messrs William Swinburne & Co., Locomotive Builders, Patterson, N. J.; Messrs. Norris, Brothers, Philadelphia, Pa.; M. W. Baldwin, Esq. do; A. C. Gray, Esq., Newcastle Manufacturing Company, Newcastle, Delaware; the Schenectady Locomotive Iron Works, Schenectady, N. York; The Boston Locomotive Works, Boston, Mass.; The Taunton Locomotive Manufacturing Company, Taunton, Mass.; Wm. Cundle Patterson, N. J.; Clute & Brothers Schenectady; Peter Smith, Albany, N. York; Thomas Snook, Rochester, N. Y.; Nashville Manufacturing Company, Nashville, Tenn.; Niles & Co., Cincinnati, Ohio; Cuyahoga Works, Ohio City.

All applications for the use of the above Patent Rights, etc. for the New England States, and New York, East of the Hudson River, to be made to H. VAN KURAN, Boston Locomotive Works, Mass., or to D. MATTHEW, Patentee, Philadelphia, Pa.

NOTICE.—Railroad Companies getting new engines, can have Matthew's Patent Spark Arrester placed on them, by applying to the manufacturers, so that the apparatus costs them nothing but the patent right. This they will find of great advantage to them. D. M.

To Railroad Co's, Locomotive Builders and Engineers.

THE undersigned having taken the Agency of Ashcroft's Steam Gauge, would recommend their adoption by those interested. They have been extensively used on Railroads, Steamers and Stationary Boilers, where, from their accuracy, simplicity, and non-liability to derangement, they have given perfect satisfaction. In fact, for Locomotives, they are the only *reliable* Gauge yet introduced.
CHAS. W, COPELAND,
Consulting Engineer, 64 Broadway.
Aug. 28, 1852.—6m*

"Leonard's" Patent Double Plate Car Wheel.

THE form of this Wheel is such that the metal is not strained in casting, hence the manufacturer will warrant them in any service Car Wheels are submitted to.

Sold in any quantity, and shipped to any part of the country or Canadas, by the subscriber, Manufacturer and Patentee, sole Agent 53 Killy St., Liberty Square, Boston. WM. S. SAMPSON.
August 21, 1851.

LOW MOOR AXLES,

A SUPERIOR Article for Railroad Cars, supplied by the Manufacturers' Agent - WM. BAILEY LANG, 9 Liberty Square, Boston.

500 Tons of Wire Wanted.

PROPOSALS ARE INVITED by the undersigned, on the part of the NIAGARA FALLS INTERNATIONAL BRIDGE COMPANIES, for the construction of the Wire Cables of the Railroad Suspension Bridge, of 800 feet span, to be erected over the Niagara river, below the Falls, for the delivery of ONE MILLION of POUNDS of IRON WIRE, or any portion of it, not less than 100,000 lbs., at the site of the bridge, on the following conditions:

1. The wire is to be of No. 10 size, so that 20 feet will weigh exactly one pound.
2. The skeins to weigh no less than 18 lbs. An offer for 30 to 40 lbs. will be greatly preferred.
3. The wire must be finished with a lime coat, smooth and even, both ends of the same thickness.
4. It must be finished in three holes, or nearly as hard as spring-wire.
5. The iron must have been manufactured of the best quality of charcoal blooms, which will make hard wire of great elasticity, strength, fibre and toughness.
6. The blooms must have been manufactured of cold-blast charcoal pig, and not of anthracite pig, nor of hot-blast pig.
7. Satisfactory evidence will be required before hand of the quality of the iron, of which the wire is to be drawn.
8. The wire must be drawn on blocks of no less than 2 feet diameter.
9. It must be put up in bundles of 200 lbs., as near as can be done, without small skeins.
10. The wire is to be delivered in five equal portions during the months of May, June, July, August and September of next year.
11. On delivery, the wire will be examined and tested in the following manner:—Of every 5 bundles or 1,000 lbs. one skein will be selected, and suspended between two posts 400 feet apart, the one end attached to a capstan, by which it will be gradually hauled on until it breaks. The condition now is, that this wire must not break with a greater deflection than 9 inches, which is equivalent to 1,300 lbs., or 90,000 per superficial inch of solid wire section. If it stands this test, then further examination of that one thousand pounds, in respect to other qualities, will be continued; but if not, it will be rejected and placed at the disposal of the contractor.
12. As regards toughness and fibre, each end of a skein will be tested by bending it square over the jaws of a large pair of new and sharp pliers, and bending it back again. The wire must stand this test without the least sign of failure. Its hardness and elasticity will at the same time be examined by bending and swinging, also by hammering, filing and notching the ends, which forms part of the operation of splicing.
13. Such lots as have stood the various tests satisfactorily, will then be accepted conditionally, and 80 per cent of its full value will then be paid to the contractor in bankable funds.
14 The 20 per cent will be reserved for four months longer. Should in that time, during the construction of the cables, any more defective skeins be discovered, such skeins will be rejected and placed at the contractor's disposal, either broken or whole, oiled or not oiled, in such condition as they happen to be during the progress of the work. The value of such wire, together with the labor expended upon it, will then be deducted out of the 20 per cent reserved.
15. The undersigned, as the Engineer of the Bridge, will be the sole judge of the above tests; he will stand as an impartial umpire between the contractor and the Bridge Companies, and from his decision there shall be no appeal.
16. Proposals for imported wire will also be accepted. One-half or 500,000 lbs. will be used on the Canada side, and may be bonded, if imported by way of New York.
17. Proposals will be received until the 1st October next; they are to be directed to the undersigned at Niagara Falls, N. Y., and should be marked on the envelope, "*Proposals for Bridge Wire.*"
18. Those contractors, whose proposals are accepted, will be informed of the fact by mail before or on the 10th October next.

JOHN A. ROEBLING,
Eng. Niagara Falls R.R. Suspension Bridge.
NIAGARA FALLS, N. Y., August 5th, 1852.

Notice to Contractors for Masonry and Bridging.

ALABAMA AND TENNESSEE RIVER R. R.

PROPOSALS will be received at the office of the Alabama and Tennessee River Railroad Company, in Selma, Alabama, until the 15th September next, for the Masonry and Superstructure of "Coosa," "Waxahatchie," "Tallasseehatchie," "Talladega" and "Chockolocko" Bridges, and also for the other masonry required on 90 miles of this road.

The work comprises about 3,000 lineal feet of Timber Bridging and 20,000 perches of Masonry, and is situated in a healthy country, where materials, provisions and labor are abundant and cheap.

Plans and specifications may be seen, and all information will be furnished at the offices of the Engineer Department in Selma and Talladega, Alabama.

Satisfactory evidences of ability and responsibility will be required from those proposing for the work. LEWIS TROOST,
Chief Engineer.
New York, August 3d, 1852. 5t32

I. Dennis, Jr.,

WASHINGTON, D. C.,

ATTORNEY for Inventors, and Agent for Procuring Patents—Practical Machinist, Manufacturer and Draughtsman, of 20 years' experience. Circulars containing important information, with a map of Washington, sent to those who forward their address, and enclose a stamp. 31tf

To Contractors.

PROPOSALS will be received at the office of the Alabama and Mississippi Rivers Railroad Company, in Uniontown, Ala., until the first of October next, for the Graduation, Masonry, Bridging and Cross-ties of said road, from the west bank of Valley Creek to Uniontown, 28 sections about one mile each. Bids proposing the entire payment, or a percentage thereof, in the stock of the road, will receive the most favorable consideration. Specifications can be seen at the office of the company in Uniontown, and also at the office of the Chief Engineer in Selma, Ala. J. J. DRAKE, Secr'y.
Uniontown, Ala., August 16, 1852. 4t*

Locomotives and Machinists' Tools.

THE LOWELL MACHINE SHOP

IS prepared to execute orders for Freight and Passenger LOCOMOTIVES of different classes, with outside or inside Cylinders of approved design and faithful workmanship.

Also—

MACHINISTS' TOOLS,

with the latest improvements—consisting in part of Hand and Engine LATHES; VERTICAL DRILLING MACHINES; PLANERS; COMPOUND PLANERS; SHAPING MACHINES; SLOTTING MACHINES; BOLT CUTTERS; Machines for boring Crank Pin holes; Trip Hammers, etc., etc. WILLIAM A. BURKE,
Superintendent.
Lowell Mass., August 23, 1852.

TRUSTEE'S SALE

Of the Property, Personal and Real, of the

Maryland Mining Company,

IN ALLEGHANY COUNTY, MARYLAND.

—o—

BY virtue of a decree passed by the Circuit Court for Alleghany county, as a Court of Equity, the undersigned, Trustees, will sell at public sale, at the Eckhart Mines of the Maryland Mining Company, ON THE FIRST DAY OF SEPTEMBER, 1852, At Twelve o'clock, Noon,

All that Valuable Mineral Estate belonging to the Maryland Mining Co., and which said company has been improving for the last seven years, by the expenditure of a vast amount of capital.

The Real Estate consists of two Tracts of Land, called "THE MARYLAND MINING CO.," and "FOUNTAIN INN," located in one body, containing about

1900 Acres of Land,

a large part of which is underlaid by the

GREAT VEIN OF COAL,

14 feet in thickness, likewise by many other veins, varying in thickness from 2 to 4 feet, the whole located in the very heart of the Great Semi-bituminous Coal Fields of Maryland.

ALSO—Two other Lots or Parcels of Land, containing 50 acres each, known as LOTS NOS. 3970 and 3972; these Lots are heavily timbered, and are said to be underlaid by the GREAT VEIN, or 14 feet vein of coal.

Also—Lots Nos. 3401, 3402 and 3403, containing 50 acres each, and adjoining the tract called "*Maryland Mining Company*," and underlaid with the great vein of coal.

Also—One Lot called "HOOK 'IM IN," containg about 80 acres, situated on Braddock's Run, two miles below the village of Eckhart. This land is heavily timbered, with timber suitable for RAILROAD CROSS TIES and other purposes. Braddock's Run affords many excellent sites for Saw or other Mills on this property.

Also—Two Lots of Land on the Canal Basin and Potomac River, containing 19¼ acres of land, being part of the bottom land of the ROSE HILL ESTATE, purchased by the Maryland Mining Company for a COAL DEPOT, and most eligibly situated for the purpose, and particularly described in a deed from Mary Lynn and others to the Maryland Mining Co., dated 19th of January and 2d February 1844, and recorded in Liber H. B. No. 1, folio 140. Each tract being on the slack-water navigation of the Potomac River. The Baltimore and Ohio Railroad passes through the whole length of both tracts.

Also—A Tract or Parcel of Land situated at the junction of Braddock's Run and Wills' Creek, containing about five acres, conveyed to the Maryland Mining Company by Joseph Dilley and Elizabeth his wife, by deed bearing date the 18th of February, 1841, and recorded in Liber A. B. No, C. C. folioes 29, 30, 31 and 32.

The two first Tracts of Land are divided into desirable FARMS, well watered and eligibly situated, and are in a high state of cultivation. The soil is good, and there is an immediate and certain market on the property in supplying the laboring population at the works with the products of the farm.

THE VILLAGE OF ECKHART MINES contains about 100 BUILDINGS of Wood, Brick and Stone, among them 1 Store house, 70 Dwellings, Machine Shop, Locomotive and Stationary Engine Houses, Carpenter Shops, Blacksmith do., Stables, Barns, etc., etc., all new and in the best repair. The village is situated near the centre of the property on the National Road, one and a half miles east of Frostburg; it is immediately convenient to the entrance of the Mines and affords accommodations to a population of 7 or 800 souls.

The Coal Mines are opened to be worked both by horizontal and slope workings, to an extent sufficient to meet the necessities of the largest coal trade. Besides the Eckhart Mines already opened, the Hoffman and other openings upon the property are eligibly situated to furnish vast amounts of coal on a very moderate outlay for improvements being made.

Also—A RAILROAD 9¼ miles in length, from the Mines to a junction with the Mt. Savage Railroad by which a continuous line of transportation is provided to the Baltimore and Ohio Railroad Depot, in the town of Cumberland, and by a branch Railroad to the Chesapeake and Ohio canal The road is laid partly on cross ties with a rail weighing 62 lbs. per lineal yard, and partly with an edge rail weighing 38 lbs. per yard supported by string timbers and cross ties, the whole in good repair, and constant transportation passing over it, together with full and ample right of way for the same acquired by condemnation and purchase.

Also—A Brauch Railroad from the Mt. Savage Railroad about one mile in length to the property of the Cumberland Basin company in the town of Cumberland, said road being new and in the best order, laid with a heavy rail of 62 lbs per yard and large oak cross ties. The two roads above mentioned of the aggregate length of 9¼ miles costing over $250,000

Also—A vast amount of personal property, for railroad and mine equipment, too numerous to mention in detail, but consisting in part of the following articles: 2 first class coal burning LOCOMOTIVE ENGINES, (Winans' make) weighing 23 tons each; 1 second class wood and coal burning do., (English make and American rebuild,) and weighing 15 tons; 1 second class, do., do, 12 tons; 30 iron coal cars; 11 Gondola coal cars; 5 coke cars; 14 platform lumber cars; 2 passenger cars; 170 mine cars for the mines; 1 superior turning lathe and other machinery, tools and implements for repairing engines and cars. Also, Horses, Carts, Oxen, Wagon and Farming Utensils, etc., etc., etc.

The revenues of the Railroad growing out of the transportation of coal and miscellaneous freight and from passengers, are more than enough to pay the interest on its cost and keep it in repair.

It is not possible in an advertisement of this kind to give a full description of the property in question, but the object of the undersigned will be effected if they shall be able by this means to call the attention of capitalists to this magnificent property, which contains within itself all the elements necessary to sustain a large mining and manufacturing business, villages erected for workmen, collieries open ready for working—Railroad and Canal communication with tide water, etc.

THE TERMS OF SALE as prescribed by the decree are, one fourth of the purchase money in cash on the day of sale, and the balance in three equal instalments of six twelve and eighteen months, with interest from the day of sale, the purchaser giving his notes or bonds with security to be approved by the Trustees, or the whole purchase money may be paid in cash at the option of the purchaser.

For further information apply to M. O. Davidson, Engineer and Superintendent, at the Mines, who will exhibit the property and explain its capabilities, or the undersigned Trustees,

GEORGE WM. BROWN,
Baltimore.
WILLIAM PRICE,
GEORGE A. PEARRE,
THOMAS J. McKAIG,
Cumberland, Trustees.

Notice is hereby given, pursuant to said decree, to the creditors of the Maryland Mining Company to file their claims with the vouchers thereof in the office of the Clerk of the Circuit Court for Alleghany county, within two months from the day of sale.

GEORGE WM. BROWN,
WILLIAM PRICE,
GEORGE A. PEARRE,
THOMAS J. McKAIG,
Trustees.

July 3, 1852.

To Contractors.

SEALED PROPOSALS will be received at the office of the Lackawana and Western Railroad Company, No. 45 Wall street, New York, until the 3rd day of September next inclusive, for the construction of a Tunnel, on the line of the Lackawana and Western Railroad, size 18 feet square, and about 2200 feet in length.

The excavation will be rock, of very favorable character for drilling and blasting.

The North end is open, and tunnelled about 100 feet. The earth excavation at the South end is now being made.

Parties desirous of bidding, can visit the work daily, via New York and Erie, and Lackawana and Western railroads, distance from Great Bend about 30 miles, and from Scranton, 18 miles.

For further information, apply at No. 45 Wall street, or at the Company's Office in Scranton.

Bidders must bring satisfactory testimonials.

By order of the President and Dirctors,
GEO. W. SCRANTON, *General Agent.*

A. Whitney & Son,

PHILADELPHIA, PA.,

MANUFACTURERS of Chilled Railroad Wheels for Cars and Locomotives. Also furnish Wheels fitted complete on best English and American Rolled and American Hammered Axles. 31tf

Notice to Contractors.

SEALED PROPOSALS will be received at the Engineer's Office of the Marietta and Cincinnati Railroad, at Point Harmar, up to the 8th of September, inclusive, for the Graduation, Masonry and Bridging of 70 miles of this road, extending from the East end of the present contract in Vinton county to Marietta. This work is well worthy the attention of Contractors. There will be about 2000 feet of Tunnelling, with several deep cuts and high embankments. The line will be ready for examination eight or ten days prior to the day of letting. Plans, profiles and specifications will be found at the Engineer's office in Athens and Harmar, and all necessary information given upon the line of the road by the Resident Engineers.

Separate proposals will be received for the Masonry and Superstructure of the Bridge across the Muskingum at Marietta—this will be about 600 feet long and be furnished with a draw of 50 feet span.

W. P. CUTLER, President.
A. KENNEDY, Engineer.

Engineer's Office, M. & C. R. R.,
Chillicothe, July 16, 1852.

Railroad Contracts.

THE Mobile and Ohio Railroad Company hereby offer for contract the *Graduation, Masonry* and *Bridging* of 179 miles more of their road, extending from Section 64 of the last *letting* in Wayne Co. to the south line of Pontotoc Co., Miss.—the latter point being 267 miles from Mobile.

The line will be ready for inspection on and after the first of August next. Also, plans, profiles and specifications will be exhibited, proposals received under seal, and contracts made at the following times and places, to wit:

August 15th—At Quitman, for line in Clarke County.
" 25th—At Lauderdale Springs, for line in Lauderdale and Kemper Counties.
September 5th—At Macon, for line in Noxubee County.
" 15th—At Major Gilmore's, 16th section on "Robinson" Road, for line in Lowndes County.
" 25th—At Doct. Gillespie's, on Aberdeen and Houston Road, for line in Monroe County.
" 30th—At Okolona, for line in Chickasaw County.

From July 25th to August 10th, the profiles can be examined, and other information obtained, of C. B. Child, Esq., Resident Engineer, at Macon, Noxubee Co., Miss.

The grading upon 8 miles of this line is heavy and good car work. About 35 miles middling heavy, and the remaining 136 miles light.

The high and healthy country in which this line of work is situated, and the proposed *letting* of 250 miles more within twelve months, to complete the road to the Ohio and Tennessee rivers, for which subscriptions are now partly taken up, render this work worthy the attention of contractors both north and south.

JOHN CHILDE,
Chief Engineer and General Agent.

New York, June 14th. 1852.

Cotton Steam Packing.

THIS Superior Packing is prepared by us expressly for Locomotive Engines. The advantages resulting from its use are—cheapness—greater safety, and economy of labor.

Orders addressed to us at 91 Wall st., New York, will have prompt attention.

J. M. HALL & CO.

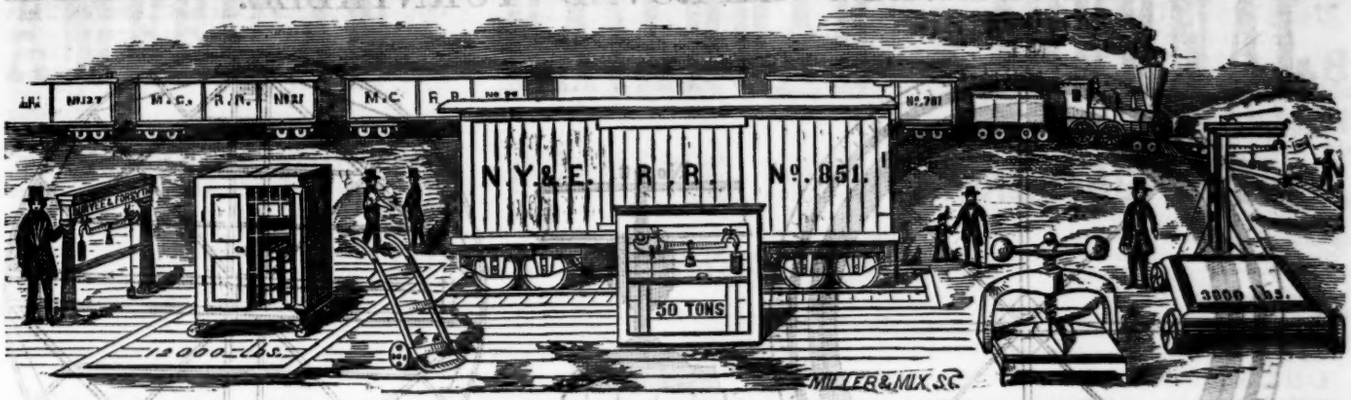
P. S.—Waste for cleaning engines, in quantities as wanted. July 24, 6m*

Railroad Iron.

1,000 TONS, 56 lbs. per lineal yard, shipped, and to be shipped, from London in July and early in August, T pattern and of best quality.

Apply to DAVIS, BROOKS & CO.,
31st July. 1m

ROCHESTER SCALE WORKS.



DEPOT SCALE, 6 TONS, AND FIRE KING SAFE. **TRACK SCALE, 100,000 LBS.** **RAILROAD MANIFEST PRESS.** **IRON SCALE, 1 1-2 TONS.**

DURYEE & FORSYTH, MANUFACTURERS, ROCHESTER, N. Y.

THE Subscribers are prepared to furnish upon order, RAILROAD SCALES of superior quality at *reduced rates*; Warehouse Trucks: Manifest Presses and Books; also, COVERT'S FIRE KING SAFE.

It has been decided by Scientific Gentlemen, that our Scales are preferable to all others, from the fact of their being made stronger and more substantial, more material used in the construction of the Levers, which renders them much safer and more durable.

OUR MOTTO is, to excel in the articles we manufacture; *therefore the best materials are used. The best model and plans are adopted*, to make them the most desirable for the market.

We wish it distinctly understood, that we use the best CAST STEEL in the bearing edges of our Scales, *although it has been otherwise reported by Messrs. Fairbanks' Agents.* We are ready at all times to test the merits of our Scales with any *honorable* competitor.

A large majority of the Track, Depot and Portable Scales in use by the New York and Erie Railroad Co. were furnished by us. Also, the Michigan Central Railroad is furnished exclusively with our Scales.

The facilities that we have for manufacturing with new and improved machinery, and the central position we occupy for shipping to the different markets, enables us to reduce the price of our Scales 10 to 15 per cent from former prices.

Our Mr. Duryee has had over twenty-one years practical experience in manufacturing. The work being under his charge furnishes a sure guaranty of the superiority of our wares. All orders will receive prompt attention. DURYEE & FORSYTH.

GENERAL DEPOTS:

Wm. T. Pinkney, Jr.,	Agent,	166 Pearl st., N.Y.
Raymond, Ward & Co.,	"	Chicago, Ill.
Crawford & Reynolds,	"	Cleveland, Ohio.
Joseph E. Elder,	"	St. Louis, Mo.
Byram, Miller & Shreve,	"	Louisville, Ky.

The following Railroads have been furnished with our Scales and Wares, exclusively or nearly so:

New York and Erie,	Cleveland and Columbus,
New York and Harlem,	Michigan Central,
New York and N. Haven,	Mad River and Lake Erie,
Sandusky, Mansfield and Newark,	Paterson and Hudson R.,
Indianapolis and Bellefontaine,	Cincinnati, Hamilton and Dayton,
Syracuse and Utica,	Buffalo and Rochester,
Columbus and Xenia,	Rochester and Syracuse,
Lexington and Frankfort,	Louisville and Frankfort,
Hillsboro' and Cincinnati,	Chicago and Galena,
Greenville and Miami,	Dayton and Western,
Cayuga and Susquehanna,	Central Ohio,
Rome and Watertown,	Chemung,
Rutland and Washington,	Illinois Coal Company,
Erie and State Line,	Buffalo and State Line,
Rochester, Lockport and Niagara Falls,	Cleveland and Pittsburg,
The Hon. Canal Commissioners, and Engineers of the Erie Canal Enlargement.	Michigan Southern,
	American Express Co.,

—

Michigan Central R. R. Office,
Detroit, May 10th, 1852.

MESSRS. DURYEE & FORSYTH,
Rochester, N. Y.,

Gentlemen: We have in use upon our road nearly one hundred of your Scales, comprising most of the sizes ordinarily in use upon railroads, many of which have been in service four or five years.

They have kept in adjustment well, retain their sensitiveness, and we regard them as strong, accurate, reliable, and in every respect satisfactory.

Respectfully yours,
J. W. BROOKS, Supt.

—

New York and Erie Railroad,
Supt's Department Gen'l Freight Office,
New York, June 21st, 1852.

To MESSRS. DURYEE & FORSYTH,
Rochester,

Gents: This company have had in use on their road for three years past about fifty of your Railroad Track, Depot and Portable Scales. It affords me much pleasure to assure you that I consider them fully equal to any scale in use on the road, in point of strength, durability, accuracy and finish.

I am very respectfully, your ob't serv't,
SAM. BROWN, Gen'l Freight Ag't.

—

The following Report was made by the Hon. Canal Commissioners of the Erie Canal Enlargement, to the Legislature of the State of New York, Feb. 3d, 1852.

WEIGH LOCK SCALE.

It is but justice to say that the new Weigh Lock at Rochester abundantly sustains the reputation claimed for it by its worthy and scientific builders.

Messrs. Duryee & Forsyth have constructed for this lock, scales of superior power, and may well challenge comparison with any similar work in or out of the State. The mode of adjustment is so easy and simple, that great certainty is secured in determining large or small weights.

Report on Duryee & Forsyth's Weigh Lock Scale, by the Committee of the State Agricultural Society.

The Committee appointed to examine the Weigh Lock Scale in the City of Rochester, manufactured by Messrs. DURYEE & FORSYTH, of said city, have performed the duty assigned them, and report that they regard it as an admirable piece of mechanism, which reflects great credit on the builders. Length of Scale, 80 feet; width, 20 ft.; height, 32 ft.; weight of scale, 75 tons: capacity of weighing 400 tons.

Considering the weight and strength of the materials used, the delicacy and accuracy of this apparatus for weighing loaded canal boats of the largest class, this scale excites universal admiration. One of the committee tested it when under the pressure of a weight of 219 tons 900 lbs., and it clearly indicated a small additional weight within five pounds.

Any description of this Scale would hardly be intelligible without drawings, which the committee have not at command. It has no equal known to the committee. They recommend that a GOLD MEDAL be awarded to DURYEE & FORSYTH, for the manufacture of an article so important to the protection of the revenue of the Erie canal, and to the accurate weighing of an incalculable amount of private property.

C. DEWEY,
DANIEL LEE.

Rochester Sept. 20th, 1851.

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We have received the Society's FIRST PREMIUMS, DIPLOMAS AND SILVER MEDALS, annually, since 1848, for the best Scales and exhibition. We have also received the DIPLOMAS and SILVER MEDAL of the American Institue, New York, and DIPLOMA of the Mechanics' Fair in Boston. Also, the HIGHEST PREMIUMS IN MONEY and DIPLOMAS of the Provincial Fairs, Canada, and State Fairs in Ohio and Michigan.

$200,000 SEVEN PER CENT. CONVERTIBLE BONDS OF the NEW-CASTLE and RICHMOND RAILROAD.—The undersigned offer for sale TWO HUNDRED SEVEN PER CENT CONVERTIBLE BONDS for $1,000 each, of the NEW-CASTLE and RICHMOND RAILROAD COMPANY, with Interest Coupons attached, payable semi-annually at the office of the Ohio Life Insurance and Trust Company, in New York. The Bonds are payable at the same place in fifteen years and are convertible into the stock of the company within five years.

These Bonds are secured by a mortgage executed by the Company to George Carlisle, of Cincinnati, and Joseph B. Varnum of New York, Trustees of the road from Richmond in Wayne County, to New-Castle in Henry County, including the superstructure, iron rails, depots, tolls, privileges and franchises of the Company. This mortgage is the FIRST AND ONLY LIEN upon this section of the Road, which is a part of the great Trunk Railroad from Cincinnati to Chicago.

The New-Castle and Richmond Railroad extends from Richmond to Logansport, 103 miles, the whole of which is under contract, and about one thousand hands are now employed on the road.

The total amount of stock subscribed upon the whole road is $509,400. The stock applicable to the construction of the road from Richmond to New Castle is $250,900.

This railroad passes through the most fertile, populous and highly improved part of Ohio and Indiana, and it must become the great route for freight and travel between Cincinnati and Chicago and the Northwest.

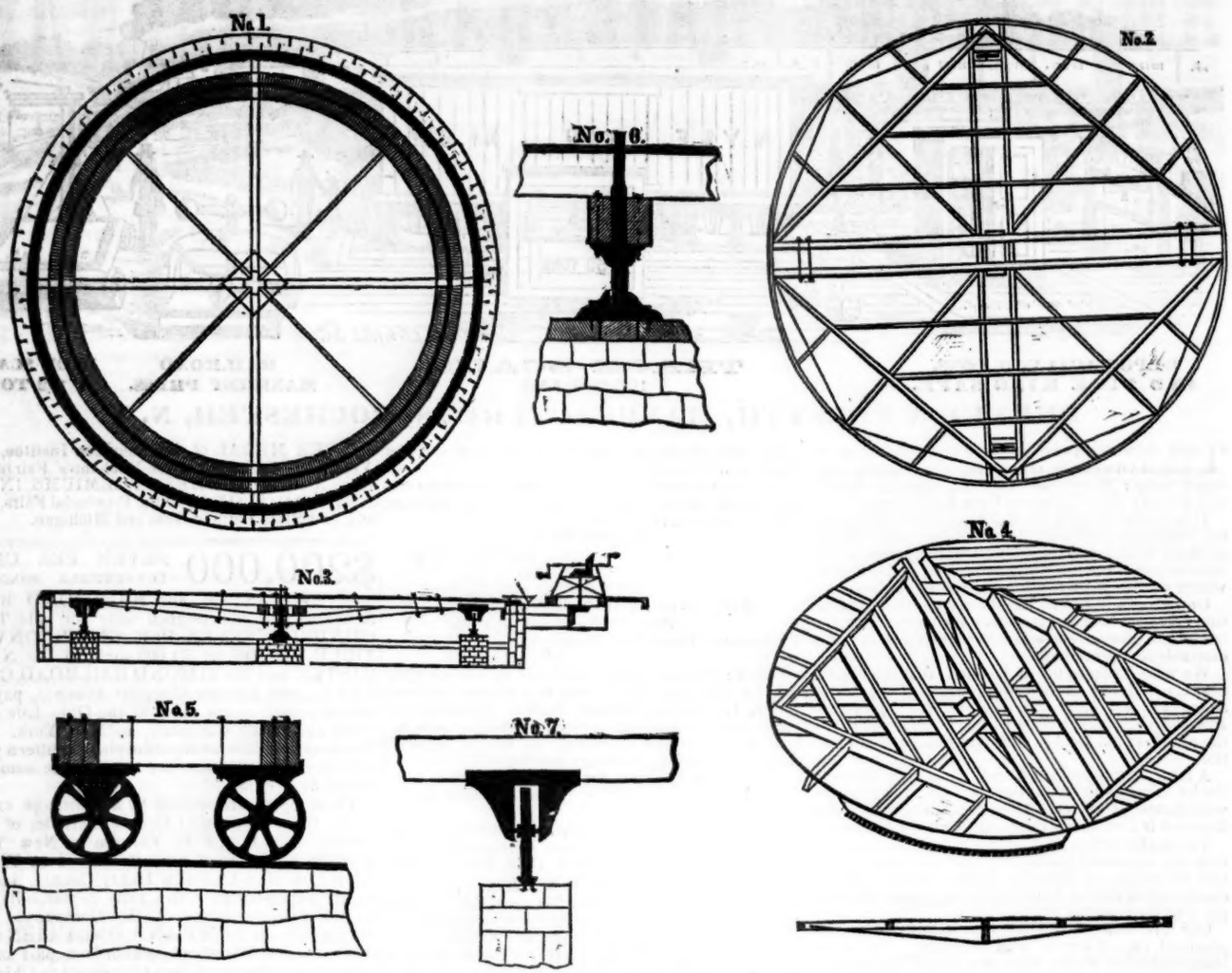
The local business alone would be sufficient to make the road profitable. The counties of Indiana through which it runs produce annually more than two millions of bushels of wheat, five millions of bushels of corn, one hundred and fifty thousand hogs, and fifteen thousand cattle, a large part of which must be transported to market on this road.

The iron rails for more than fifty miles of the road have been purchased. Ten miles of the road, from Richmond to Washington, will be completed and in operation in November next, which will make a continuous railroad of about 70 miles from Cincinnati, by way of Hamilton, Eaton and Richmond.

The holders of the bonds will have for their security the obligations of the company, with subscriptions of stock to the amount of more than half a million of dollars, and a mortgage upon the road from Richmond to New Castle, with the iron rails, superstructure, tolls and franchises of the company.

CARPENTER & VERMILYE, 44 Wall-st.
CAMMANN WHITEHOUSE & Co., 56 Wall-st.

CARHART'S IMPROVED TURNTABLE.



THE Patentee of the improved Turntable solicits an examination of its merits by Railroad Companies. It has been in use on the Hudson River Railroad during the last three years, since which, some improvements have been made upon it. The Patentee is now putting down the fifth table on the Ohio and Pennsylvania Railroad, where these tables have been in use for one year past. The *chief merits* of this Turntable are that it is capable of being turned by two men, with an engine and tender upon it, weighing thirty-five tons, in the space of two minutes. Its cost, including all material, the best kind of workmanship in wood, iron and masonry—except excavating the pit and laying the track—is only *thirteen hundred dollars*, and all repairs, except the ordinary wear and tear, will be guarantied for the sum of five dollars a year, for three years.

Figure 1 of the above cut represents the foundation, consisting of the bank and track walls; centre pier, cross-timber for bolting the step of pivot to. The track, which is spiked and leaded into the coping of the wall, the latter being composed of stone 2½ feet square. The Bank wall is 5 feet high and 20 inches thick, with cut and hammered dressed stone coping laid in lime and sand. Fig. 2 shows the carcass framing. Fig. 3 gives a side view of one main truss, with the mode of gearing, including rack and pinion. Fig. 4 gives a perspective view of rim and segments. Fig. 5 an end view of the main trucks with pedestals and wheels. Fig. 6 screw for pivot, 6 inches in diameter, running to the top of the table, with the lever for adjustment. Fig. 7 shows the cross section of the track wall, wheel and pedestal.

For further particulars please address the subscriber through WM. W. PRATT, Jersey City, N. J.

June 19th. D. H. CARHART.